
=> FILE REG

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http://www.cas.org/support/stngen/stndoc/properties.html

=> FILE HCAPL

FILE 'HCAPLUS' ENTERED AT 12:38:20 ON 18 SEP 2007
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FILE COVERS 1907 - 18 Sep 2007 VOL 147 ISS 13 FILE LAST UPDATED: 17 Sep 2007 (20070917/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

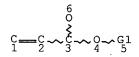
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L5 ~ STR

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VAR G2=1/8
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CONNECT IS E1 RC AT 6
CONNECT IS E1 RC AT 7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L6 SCR 2043
L8 STR



VAR G1=AK/CB NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE L10 STR

C = C - O - Ak

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

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L13
           4477 SEA FILE=HCAPLUS ABB=ON L12
L14
             45 SEA FILE=HCAPLUS ABB=ON L13 AND CEMENT#
L15
             46 SEA FILE=HCAPLUS ABB=ON L13 AND CONCRETE#
L16
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L17
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L44
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          6403 SEA FILE=HCAPLUS ABB=ON L45/D
L47
             4 SEA FILE=REGISTRY ABB=ON L43 OR L44 OR L25 OR L26
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               OR L42 OR L43 OR L44)
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L64 .
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L68
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L69
            59 SEA FILE=HCAPLUS ABB=ON L20 OR L68
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=> D L69 BIB ABS HITIND HITSTR

- L69 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:906225 HCAPLUS Full-text
- DN 147:258156
- TI Water-soluble, sulfo group-containing copolymers, procedures for their production and their use
- IN Friedrich, Stefan; Schinabeck, Michael; Tselebidis, Andreas; Nachreiner,

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Michael
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PA
    Construction Research & Technology GmbH, Germany
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10/551268

Ger. Offen., 22pp. SO

CODEN: GWXXBX

DT Patent

LAGerman

FAN.CNT 1

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PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ____
PΙ
     DE 102006007004
                          Α1
                                20070816
                                            DE 2006-102006007004
                                                                    20060215
    WO 2007093392
                          Α1
                                20070823
                                            WO 2007-EP1249
                                                                    20070213
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
             KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
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PRAI DE 2006-102006007004 A 20060215

AB Water-soluble, sulfo group-containing copolymers are prepared for use as stabilizers, rheol. modifiers and water-retention agents in aqueous building materials based on hydraulic binders and for use in waterborne paints and coatings. The copolymers contain (A) 40-93.89 mol% CH2CR1(CONCR2R3CHR4SO3Ma) units [R1 = H or Me; R2, R3, R4 = H, C1-6 aliphatic hydrocarbyl, or (substituted) Ph; M = H, 1- or 2-valent metal cation, NH4, or organic amine group; a = 1/2 or 1], (B) 6-59.89 mol% CH2CR1(COYVN+R5R6R7)X units [Y = O, NH, or NR5; V = (CH2)x, p-C6H4, or 1,4-cyclohexylene; R5, R6 = (substituted) C1-20 aliphatic hydrocarbyl, (substituted) C5-6 cycloaliph. hydrocarbyl, (substituted) C6-14 aryl; R7 = R5, R6, (CH2) $\times SO3Ma$, p-C6H4SO3Ma, or hydrogenated p-C6H4SO3Ma; x = 1-6; X = F, Cl, Br, I, C1-4-alkyl sulfate, or C1-4-alkanesulfonate; R1 = H or Me; M = same as in (a)], (C) 0.1-10 mol% CH2CR1(Z) units [Z = (CH2)qO(CnH2nO)pR8 or CO2(CnH2nO)pR8; n = 2-4; p = 1-200;q = 0-20; R8 = H, C1-4 alkyl; R1 = H or Me], and(or) (D) 0.01-0.5 mol% C10-30 alkyl; R10 = H, C1-6 alkyl, ar-C1-6-alkyl, or C6-14 aryl; y = 1-3; R1 = H or Me; n = 2-4; p = 1-200; q = 0-20]. Optionally, the copolymers contain \leq 15 mol% CH2CR1(WNR5R6) units [W = CO2(CH2)m or CONR2(CH2)m; m = 1-6; R1 = H or Me, R2, R5, R6 = same as in (A) and (B)] and (or) \leq 30 mol% CH2CR1(CO2Ma) units [R1, M, a = same as in (A)]. A typical copolymer was manufactured by dissolving 9.2 g NaOH, 47.6 g 2-acrylamido-2-methylpropanesulfonic acid, 17.2 g (3-methacrylamidopropyl)trimethylammonium chloride (50% aqueous solution), 0.39 g polyethylene glycol tristyrylphenyl ether methacrylate (60% aqueous solution) in water, adding 5% aqueous NaOH solution (resulting pH 7), adding 13.6 g polyethylene glycol vinyl Bu ether (60% aqueous solution) and radically polymerizing 4 h at 80°.

CC 35-4 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 42, 58

ITConcrete modifiers

Dispersing agents

Mortar

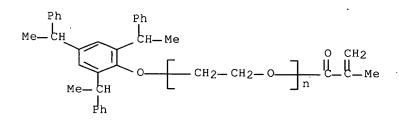
ΙT

Plaster

Plasticizers

(water-soluble, sulfo group-containing amphoteric copolymers for hydraulic building material additives and waterborne paints) 945669-68-1P 945669-69-2P 945669-70-5P **945669-71-6P**

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945669-72-7P
                    945669-73-8P
                                    945830-68-2P
                                                    945830-70-6P
                                                                   945830-72-8P
     945830-74-0P
                    945830-75-1P
                                    945830-89-7P
                                                    945831-03-8P
                                                                   945831-05-0P
     945831-07-2P
                    945831-08-3P
                                    945831-10-7P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
     ; TEM (Technical or engineered material use); PREP (Preparation); USES
     (Uses)
        (water-soluble, sulfo group-containing amphoteric copolymers for hydraulic
        building material additives and waterborne paints)
IT
     945669-71-6P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
     ; TEM (Technical or engineered material use); PREP (Preparation); USES
        (water-soluble, sulfo group-containing amphoteric copolymers for hydraulic
        building material additives and waterborne paints)
RN
     945669-71-6 HCAPLUS
CN
     1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-yl)amino]-,
     chloride (1:1), polymer with \alpha-butyl-\omega-(ethenyloxy)poly(oxy-
     1,2-ethanediyl), \alpha-(2-methyl-1-oxo-2-propen-1-yl)-\omega-[2,4,6-
     tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl), sodium
     2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonate (1:1) and
     sodium 2-propenoate (1:1), graft (CA INDEX NAME)
     CM
     CRN
          174200-85-2
     CMF
          (C2 H4 O)n C34 H34 O2
     CCI
          PMS
```



CM 2

CRN 126662-55-3

CMF (C2 H4 O)n C6 H12 O

CCI PMS

CRN 51410-72-1 CMF C10 H21 N2 O . C1

● C1 -

CM 4

CRN 7446-81-3 CMF C3 H4 O2 . Na

0 HO_ C_ CH__ CH₂

Na

CM 5

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

NH_C_ CH__ CH2

Me_ C_ CH2_ SO3H

Me

Na

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L69 BIB ABS HITIND HITSTR 2-59

L69 ANSWER 2 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:261803 HCAPLUS Full-text

DN 146:364049

TI Copolymer containing oxyalkylene diol alkenyl ether and unsaturated dicarboxylic acid derivatives and uses as concrete modifier

IN Eiblesitter, Gehart; Weissman, Joseph; Panknin, John; Karn, Alfred

PA Architectural Technology Co., Ltd., Germany

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 25pp. CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

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PEZZUTO
                     10/551268
                                              9/18/07
     PATENT NO.
                         KIND DATE
                                           APPLICATION NO.
                                                                  DATE
                                            -----
PI
    CN 1919884
                                20070228
                                            CN 2005-10093557
                                                                   20050826
PRAI CN 2005-10093557
                                20050826
AΒ
     The title copolymer contains 10-90 mol% unsatd. dicarboxylic acid derivs., 1-
     89 mol% oxyalkylene diol alkenyl ether, ester derivs., polyalkylene diol vinyl
     ether, etc., and 0.1-10 mol% crosslinking agent such as a polydimethylsiloxane
     compound The copolymer has good and durable liquefaction effect and no pore
     introduction to the cementing mixture, and can be used as water-hardening
     cementing agent and cement additive to prevent the decrease of strength and
     stability of hardened construction materials.
CC
     58-2 (Cement, Concrete, and Related Building
    Materials)
    Section cross-reference(s): 37
ST
    concrete additive maleic anhydride polyoxyethylene
    polyoxypropylene graft copolymer
ΙT
    Concrete
       Concrete modifiers
     Dispersing agents
        (copolymer containing oxyalkylene diol alkenyl ether and unsatd.
        dicarboxylic acid derivs. and uses as concrete modifier)
IT
    Lime (chemical)
    RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (copolymer containing oxyalkylene diol alkenyl ether and unsatd.
        dicarboxylic acid derivs. and uses as concrete modifier)
ΙT
        (portland, PC 35 Kiefersfelden; copolymer containing oxyalkylene diol
        alkenyl ether and unsatd. dicarboxylic acid derivs. and uses as
        concrete modifier)
    108-31-6DP, Maleic anhydride, graft polymers 50856-25-2DP
IT
     Poly(ethylene glycol) methyl vinyl ether, graft polymers
    106392-12-5DP, Ethylene oxide-propylene oxide block copolymer,
    propanediolamine derivative reaction products with maleic anhydride, graft
              106494-51-3DP, Ethylene oxide-propylene oxide block copolymer
    monomethyl ether, propanediolamine derivative reaction products with maleic
     anhydride, graft polymers 929901-36-0P 929901-38-2P
                                                               929901-40-6P
     929901-42-8P 929901-44-0P
                               929901-46-2P 929901-48-4P
     930086-28-5P
                    930086-30-9P
                                  930086-32-1P
                                                  930086-34-3P 930086-38-7P
     930086-40-1P
                    930086-42-3P
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
     ; PREP (Preparation); USES (Uses)
        (copolymer containing oxyalkylene diol alkenyl ether and unsatd.
        dicarboxylic acid derivs. and uses as concrete modifier)
TT
    13397-24-5, Gypsum, properties
    RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (copolymer containing oxyalkylene diol alkenyl ether and unsatd.
        dicarboxylic acid derivs. and uses as concrete modifier)
    108-31-6DP, Maleic anhydride, graft polymers 50856-25-2DP
     , Poly(ethylene glycol) methyl vinyl ether, graft polymers
    929901-44-0P 929901-48-4P
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
     ; PREP (Preparation); USES (Uses)
```

108-31-6 HCAPLUS

2,5-Furandione (CA INDEX NAME)

RN

CN

(copolymer containing oxyalkylene diol alkenyl ether and unsatd.

dicarboxylic acid derivs. and uses as concrete modifier)

RN 50856-25-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -ethenyl- ω -methoxy- (CA INDEX NAME)

RN 929901-44-0 HCAPLUS

CN 2-Butenedioic acid (2Z)-, 1,4-dibutyl ester, polymer with α -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl) and 2,5-furandione, graft, sodium salt (CA INDEX NAME)

CM 1

CRN 929901-43-9

CMF (C12 H20 O4 . C4 H2 O3 . (C2 H4 O)n C3 H6 O)x

CCI PMS

CM 2

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO = CH_2 - CH_2 - O = CH = CH_2$$

CM 3

CRN 108-31-6 CMF C4 H2 O3



CM 4

CRN 105-76-0 CMF C12 H20 O4

Double bond geometry as shown.

RN 929901-48-4 HCAPLUS

CN 2,5-Furandione, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propen-1-yl)oxy]propyl]silyl]- ω -[[dimethyl[3-[(2-methyl-1-oxo-2-propen-1-yl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)] and α -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl), graft, sodium salt (CA INDEX NAME)

CM 1

CRN 929901-47-3

CMF (C4 H2 O3 . (C2 H6 O Si)n C18 H34 O5 Si2 . (C2 H4 O)n C3 H6 O)x CCI PMS $\,\cdot\,$

CM 2

CRN 58130-03-3

CMF (C2 H6 O Si)n C18 H34 O5 Si2

CCI PMS

CM 3

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO = CH_2 - CH_2 - O = CH_2 - CH_2$$

CM 4

CRN 108-31-6 CMF C4 H2 O3

L69 ANSWER 3 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:261802 HCAPLUS Full-text

DN 146:359636

TI Copolymers of oxyalkyleneglycol alkenyl ethers and derivatives of unsaturated dicarboxylic acids as additives for hydraulic binders

IN Eiblesitter, Gehart; Schubotz, Christian; Laitene, Hubert; Gelasio, Herard; Karn, Alfred

PA Architectural Technology Research Co., Ltd., Germany

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 27pp. CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	CN 1919887	A	20070228	CN 2005-10093558	20050826
PRAI	CN 2005-10093558		20050826		

The copolymer is prepared from unsatd. mono- or dicarboxylic acid derivs., oxyalkylene glycol alkenyl ethers, vinylpolyalkylene diols, polysiloxanes or ester compds. Thus, 3300 g polyethylene glycol Me vinyl ether and 58.8 g maleic anhydride were added with 33.00 g reaction product of amino-terminated ethylene oxide-propylene oxide block copolymer and maleic acnhydride, 930 mg ferrous sulfate heptahydrate, 5.97 g 3-thiopropionic acid, 281.00 g acrylic acid containing 17.9 g 3-thiopropionic acid in 843 g water, 252 mL 2% sodium hydroxymethyl sulfinate, finally neutralized with sodium hydroxide to pH 6.5 to give a title copolymer.

CC 37-3 (Plastics Manufacture and Processing) Section cross-reference(s): 58

IT Adhesives

Cement

(copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids as additives for hydraulic binders)

ΙT 79-10-7DP, Acrylic acid, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride, polyethylene glycol Me vinyl ether, polysiloxane and styrene 79-41-4DP, Methacrylic acid, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 100-42-5DP, Styrene, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 105-76-0DP, Maleic acid dibutyl ester, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 108-31-6DP, Maleic anhydride, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer polyethylene glycol Me vinyl ether, polysiloxane and styrene 2170-03-8DP, Itaconic anhydride, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 25322-69-4DP, Polypropylene glycol, maleamide-terminated, reaction product with (meth)acrylates, maleic anhydride and polyethylene glycol Me vinyl 26915-72-0DP, Polyethylene glycol monomethyl ether monomethacrylate, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene

ΙT

glycol Me vinyl ether 50856-25-2DP, Polyethylene glycol methyl vinyl ether, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride, polysiloxane and styrene 58130-03-3DP, Methacryloxypropyl-terminated polydimethylsiloxane, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 117989-77-2DP, maleamide-terminated, reaction product with (meth)acrylates, maleic anhydride, polyethylene glycol Me vinyl ether, polysiloxane and styrene 135374-83-3DP, Polyethylene glycol monomethyl ether monomaleic acid ester, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids as additives for hydraulic binders)

79-10-7DP, Acrylic acid, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride, polyethylene glycol Me vinyl ether, polysiloxane and styrene 79-41-4DP, Methacrylic acid, reaction product with maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 105-76-0DP , Maleic acid dibutyl ester, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride and polyethylene glycol Me vinyl ether 108-31-6DP , Maleic anhydride, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer polyethylene glycol Me vinyl ether, polysiloxane and styrene 50856-25-2DP, Polyethylene glycol methyl vinyl ether, reaction product with (meth)acrylates, maleamide-terminated ethylene oxide-propylene oxide block copolymer, maleic anhydride, polysiloxane and styrene

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids as additives for hydraulic binders)

RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (CA INDEX NAME)

RN 79-41-4 HCAPLUS CN 2-Propenoic acid, 2-methyl- (CA INDEX NAME)

RN 105-76-0 HCAPLUS
CN 2-Butenedioic acid (2Z)-, 1,4-dibutyl ester (CA INDEX NAME)

Double bond geometry as shown.

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 50856-25-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -ethenyl- ω -methoxy- (CA INDEX NAME)

$$MeO = CH_2 - CH_2 - O = CH = CH_2$$

L69 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1224956 HCAPLUS Full-text

DN 146:8433

TI Production and use of copolymers from phosphorous-containing monomers

IN Einfeldt, Lars; Kraus, Alexander; Albrecht, Gerhard; Brandl, Martina; Hartl, Angelika

PA Construction Research & Technology G.m.b.H., Germany

SO PCT Int. Appl., 41pp. CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

r mn.	PATENT NO.				KIN	D -	DATE			APPL	ICAT	ION I	NO.		D	ATE		
PI	WO	2006	1227	93		A1		2006	1123	1	WO 2	006-	EP46	91		2	0060	517
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	ΚP,	KR,
			ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
			MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
			SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
			VN,	YU,	ZA,	ZM,	zw											
		RW:	AT,	BE,	BG,	CH,	CY,	ÇΖ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
			IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
			CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
			GM,	KE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	ΤŻ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	ΚZ,	MD,	RU,	ТJ,	TM										
	DE	1020	0502	2843		A1		2006	1123	1	DE 2	005-	1020	0502	2843	2	0050	518
PRAI	DE	2005	-102	0050	2284	3 A		2005	0518									

AB The title copolymers, useful as binders (e.g., for concrete) which improve flow and improve H2O reduction, cyclic and/or acyclic P-containing monomers

```
and unsatd. polyoxyalkylenes of specified structure. Thus, 1.2 equivalent N-
(aminoethyl phosphate) maleamide was polymerized with 1.0 equivalent [4-
(vinyloxy)butyl]polyethylene glycol (mol. weight 500) to give an alternating
copolymer with weight-average mol. weight 11,690 and polydispersity 1.25. Use
of the copolymers as binders for concrete is exemplified.
```

35-4 (Chemistry of Synthetic High Polymers) CC Section cross-reference(s): 58

10/551268

ST phosphorus contg monomer copolymer; aminoethyl phosphate maleimide copolymer; vinyloxybutyl polyoxyethylene copolymer; binder copolymer phosphorus contg; concrete binder copolymer phosphorus contg

IΤ Concrete

> (copolymers from phosphorous-containing monomers as binders for concrete)

ΙT 915380-78-8P, N-(Mono(2-aminoethyl) phosphate)maleamide-polyethylene glycol mono[4-(vinyloxy)butyl] ether alternating copolymer 915380-79-9P. N-(Mono(2-aminoethyl) phosphate)maleamide-hydroxypropyl acrylate-polyethylene glycol mono[4-(vinyloxy)butyl] ether graft copolymer 915380-80-2P, N-(Mono(2-aminoethyl) phosphate)maleamide-2hydroxyethyl methacrylate-polyethylene glycol mono[4-(vinyloxy)butyl] ether graft copolymer 915380-82-4P, N-(Mono(2-(2-aminoethoxy)ethyl) phosphate)maleamide-polyethylene glycol mono[4-(vinyloxy)butyl] ether alternating copolymer 915380-84-6P, N-(Mono(6-aminohexyl) phosphate)maleamide-polyethylene glycol mono[4-(vinyloxy)butyl] ether alternating copolymer 915380-86-8P, N-(Mono(4-aminobenzyl) phosphate)maleamide-polyethylene glycol mono[4-(vinyloxy)butyl] ether 915380-88-0P, N-(Diethanolamine bis(dihydrogen alternating copolymer phosphate))maleamide-polyethylene glycol mono[4-(vinyloxy)butyl] ether alternating copolymer 915380-89-1P, N-(Mono(2-aminoethyl) phosphate)maleamide-4-hydroxybutyl vinyl ether alternating copolymer 915380-90-4P, N-(Diethanolamine bis(dihydrogen phosphate))maleamide-4hydroxybutyl vinyl ether alternating copolymer 915380-91-5P, N-(Mono(2-aminoethyl) phosphate)maleamide-triethylene glycol methyl vinyl ether alternating copolymer 915380-92-6P, N-(Mono(2-aminoethyl) phosphate) maleamide-maleic anhydride alternating copolymer N-(Mono(2-aminoethyl) phosphate)maleamide-N-(2-hydroxyethyl)maleimide alternating copolymer 915380-94-8P, N-(Mono(2-aminoethyl) phosphate)maleamide-4-hydroxybutyl vinyl ether-N-(2-hydroxyethyl)maleimide copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and use of copolymers from phosphorous-containing monomers) 915380-80-2P, N-(Mono(2-aminoethyl) phosphate)maleamide-2hydroxyethyl methacrylate-polyethylene glycol mono[4-(vinyloxy)butyl] ether graft copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and use of copolymers from phosphorous-containing monomers)

915380-80-2 HCAPLUS RN

CN 2-Butenoic acid, 4-oxo-4-[[2-(phosphonooxy)ethyl]amino]-, (2Z)-, polymer with $\alpha-[4-(\text{ethenyloxy})\text{butyl}]-\omega-\text{hydroxypoly}(\text{oxy-1,2-ethanediyl})$ and 2-hydroxyethyl 2-methyl-2-propenoate, graft (CA INDEX NAME)

CM 1

IT

CRN 915380-77-7 CMF C6 H10 N O7 P

Double bond geometry as shown.

$$HO_2C$$
 OPO3H2

CM 2

CRN 126682-74-4

CMF (C2 H4 O)n C6 H12 O2

CCI PMS

CM 3

CRN 868-77-9 CMF C6 H10 O3

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:217912 HCAPLUS Full-text

DN 146:64215

TI Preparation of core-shell emulsion polymers for fiberglass mesh

AU Ju, Hong-wei; Wang, Xiao-bing; Lin, Zhong-xiang

CS School of Chemical Engineering, Nanjing Forestry University, Nanjing, 210037, Peop. Rep. China

SO Huaxue Yu Nianhe (2006), 28(1), 20-24

CODEN: HYZHEN; ISSN: 1001-0017

PB Huaxue Yu Nianhe Bianji Weiyuanhui

DT Journal

LA Chinese

Fiberglass mesh should have properties such as softness, high strength and good alkali-resistivity as reinforced materials in concrete. The conventional emulsion coating for fiberglass mesh was tacky in hot circumstance and brittle in cold circumstance and also poor in strength and easy corroded. Emulsion coating having excellent properties was prepared by core-shell polymerizing and introducing an organosilicon coupler to copolymerize with shell polymer. The emulsion coating showed good softness, high blocking resistance and high strength, and the alkali - resistivity keeping rate reach 85.2% when the Tg of core polymer was (-45)°, the Tg of shell polymer was 20°, the mass ratio of shell to core was 5/4 and 3% N-hydroxymethylacrylamide and 4% organosilicon coupler based on shell monomer were introduced.

CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 58

```
PEZZUTO
                      10/551268
                                               9/18/07
     acrylic core shell emulsion concrete fiberglass mesh coating
     prepn
ΙT
     Coating materials
        (emulsion; preparation of acrylic core-shell emulsions for fiberglass mesh
        coating used as concrete reinforcing materials)
     Polymerization
IT
        (graft; preparation of acrylic core-shell emulsions for fiberglass mesh
        coating used as concrete reinforcing materials)
IT
     Glass transition temperature
     Polymer morphology
     Thermal properties
        (of acrylic core-shell emulsions and effect on coating properties
        fiberglass mesh used as concrete reinforcing materials)
IT
     Coating process
       Concrete
        (preparation of acrylic core-shell emulsions for fiberglass mesh coating
        used as concrete reinforcing materials)
IT
     Glass fiber fabrics
     RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
     process); PROC (Process); USES (Uses)
        (preparation of acrylic core-shell emulsions for fiberglass mesh coating
        used as concrete reinforcing materials)
ΙT
     916901-06-9P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (core-shell; preparation of acrylic core-shell emulsions for fiberglass
mesh
        coating used as concrete reinforcing materials)
ΙT
     2530-85-0, KH 570
     RL: MOA (Modifier or additive use); USES (Uses)
        (preparation of acrylic core-shell emulsions for fiberglass mesh coating
        used as concrete reinforcing materials)
IT
     151-21-3, Sodium dodecyl sulfate, uses 153301-99-6, OP 10
     RL: NUU (Other use, unclassified); USES (Uses)
        (preparation of acrylic core-shell emulsions for fiberglass mesh coating
        used as concrete reinforcing materials)
IT
     916901-06-9P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (core-shell; preparation of acrylic core-shell emulsions for fiberglass
mesh
        coating used as concrete reinforcing materials)
RN
```

916901-06-9 HCAPLUS

2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl CN 2-propenoate, ethenyl acetate, ethenylbenzene, 2-ethylhexyl 2-propenoate, N-(hydroxymethyl)-2-propenamide and 2-propenoic acid, graft (CA INDEX NAME)

CM 1

CRN 924-42-5 CMF C4 H7 N O2

HO_ CH2_ NH_ C_ CH__ CH2

CM 2

CRN 141-32-2 CMF C7 H12 O2

n-BuO_C_CH__CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 4

CRN 103-11-7 CMF C11 H20 O2

CH2-O-C-CH-CH2
Et-CH-Bu-n

CM 5

CRN 100-42-5 CMF C8 H8

H 2 C === C H -- P h

CM 6

CRN 80-62-6 CMF C5 H8 O2

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CM 7
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CRN 79-10-7 CMF C3 H4 O2

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ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
L69
ΑN
     2005:823748 HCAPLUS
                          Full-text
DN
     143:230380
TΙ
     Production and use of copolymers based on unsaturated mono- or
     dicarboxylic acid derivatives and oxyalkylene glycol alkenyl ethers
IN
    Moraru, Bogdan; Huebsch, Christian; Albrecht, Gerhard; Scheul, Stefanie;
     Jetzlsperger, Eva
PΑ
     Construction Research & Technology G.m.b.H., Germany
SO
     PCT Int. Appl., 32 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     German
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ____
                                _____
                                            -----
                                                                    _____
ΡI
    WO 2005075529
                          A2
                                20050818
                                            WO 2005-EP1087
                                                                    20050203
    WO 2005075529
                          A3
                                20061130
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     DE 102004005434
                          Α1
                                20050825
                                            DE 2004-102004005434
                                                                    20040204
     AU 2005209997
                          A1
                                20050818
                                            AU 2005-209997
                                                                    20050203
     CA 2554763
                          Α1
                                20050818
                                            CA 2005-2554763
                                                                    20050203
    EP 1711544
                          A2
                                20061018
                                            EP 2005-707171
                                                                    20050203
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
             BA, HR, IS, YU
    BR 2005007444
                          Α
                                20070710
                                            BR 2005-7444
                                                                    20050203
    CN 1997679
                          Α
                                20070711
                                            CN 2005-80004031
                                                                    20050203
     JP 2007523235
                          Т
                                20070816
                                            JP 2006-551803
                                                                    20050203
     IN 2006KN02134
                          Α
                                20070518
                                            IN 2006-KN2134
                                                                    20060728
     US 2007161724
                          Α1
                                20070712
                                            US 2006-588041
                                                                    20060801
     KR 2007028310
                                20070312
                                            KR 2006-715642
                                                                    20060802
                          Α
PRAI DE 2004-102004005434 A
                                20040204
    WO 2005-EP1087
                                20050203
                          W
AΒ
     The title polymers, useful as additives for aqueous suspensions of inorg. or
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bituminous binders, useful as additives for aqueous suspensions of inorg. or bituminous binders, are prepared from 3-4 classes of monomers of specified structure. Polymerization of an aqueous mixture of (vinyloxy)butyl polyethylene glycol (mol. weight 12,000) 310, acrylic acid 23.81, and α -Bu ω -

maleamido block polyethylene-polypropylene glycol (mol. weight 1800) 0.256 g in the presence of FeSO4, 3-mercaptopropionic acid, Bruggolit, H2O2, and NaOH (pH 6.5) at 15° gave a 42.5% solution of copolymer with mol. weight 65,700. Use of the polymers with **concrete** is exemplified.

IC ICM C08F222-00

CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 58

ST polyoxyalkylene copolymer manuf; acrylic acid copolymer manuf; concrete additive copolymer aq; alkenyl ether copolymer manuf; carboxylic acid polyoxyalkylene deriv copolymer

IT Concrete

IT

(copolymers based on unsatd. mono- or dicarboxylic acid derivs. and oxyalkylene glycol alkenyl ethers for use with binders in construction)

79-10-7DP, Acrylic acid, polymers with maleamido block polyethylene-polyypropylene glycol 79-41-4DP, Methacrylic acid, polymers with maleamido block polyethylene-polyypropylene glycol 100-42-5DP, Styrene, polymers with maleamido block polyethylene-polyypropylene glycol and acrylic compds. 2170-03-8DP, Itaconic anhydride, polymers with maleamido block polyethylene-polyypropylene glycol 25584-83-2DP, Hydroxypropyl acrylate, polymers with maleamido block polyethylenepolyypropylene glycol and acrylic compds. 26915-72-0DP, Polyethylene glycol methyl ether methacrylate, polymers with maleamido block polyethylene-polyypropylene glycol and acrylic compds. 106392-12-5DP, Polyethylene oxide-polyypropylene oxide block copolymer, maleamido Bu terminated , reaction products with acrylic compds. 862556-03-4P , Acrylic acid-dibutyl maleate-maleic anhydride-(vinyloxy)butyl polyethylene glycol copolymer 862646-93-3P, Acrylic acid-4-(vinyloxy)butyl block polyethylene-polypropylene glycol copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and use of copolymers based on unsatd. mono- or dicarboxylic acid derivs. and oxyalkylene glycol alkenyl ethers)

IT 862556-03-4P, Acrylic acid-dibutyl maleate-maleic anhydride-(vinyloxy)butyl polyethylene glycol copolymer RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production and use of copolymers based on unsatd. mono- or dicarboxylic acid derivs. and oxyalkylene glycol alkenyl ethers)

RN 862556-03-4 HCAPLUS

CN 2-Butenedioic acid (2Z)-, dibutyl ester, polymer with α -[4- (ethenyloxy)butyl]- ω -hydroxypoly(oxy-1,2-ethanediyl), 2,5-furandione and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126682-74-4

CMF (C2 H4 O)n C6 H12 O2

CCI PMS

HO
$$CH_2 - CH_2 - O - In (CH_2) 4 - O - CH - CH_2$$

CM 2

CRN 108-31-6

CMF C4 H2 O3



CM 3

CRN 105-76-0 CMF C12 H20 O4

Double bond geometry as shown.

$$n-BuO$$
 Z $OBu-n$

CM 4

CRN 79-10-7 CMF C3 H4 O2

L69 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:900966 HCAPLUS Full-text

DN 141:383258

TI Hardening accelerator for blowing, rapid hardening concrete, and its blowing method

IN Nakajima, Yasuhiro; Mishima, Shunichi; Terashima, Isao; Ishida, Tsumoru

PA Denki Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

T 2 2 1 4 . (
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE						
ΡI	JP 2004300008	Α	20041028	JP 2003-98150	20030401						
PRAT	TP 2003-98150		20030401								

AB The hardening accelerator for blowing contains Ca-containing liquid hardening accelerator selected from Ca(NO3)2 and/or Ca(NO2)2, alkali thickening type polymer emulsion and optionally alkanolamine. The rapid hardening concrete contains the hardening accelerator for blowing and cement concrete. Steel frames are arranged at uncovered faces to form frame skeleton, and the rapid hardening concrete is blown to the frame skeleton to form concrete frame.

IC ICM C04B022-08

ICS C04B024-12; C04B028-02; E02D017-20; C04B103-12; C04B103-14

10/551268

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58-2 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
ST
     calcium nitrate polymer emulsion hardening accelerator rapid hardening
     concrete
IT
    Alcohols, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (amino; hardening accelerator containing calcium nitrate or calcium nitrite
        and polymer emulsion for rapid hardening concrete and its
        blowing method)
ΤТ
     Concrete
        (hardening accelerator containing calcium nitrate or calcium nitrite and
        polymer emulsion for rapid hardening concrete and its blowing
ΙT
     Polymers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (hardening accelerator containing calcium nitrate or calcium nitrite and
        polymer emulsion for rapid hardening concrete and its blowing
       method)
     12597-69-2, Steel, uses
ΙT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (frame; hardening accelerator containing calcium nitrate or calcium nitrite
        and polymer emulsion for rapid hardening concrete and its
        blowing method)
IT
     108-01-0, N, N-Dimethylethanolamine
                                          111-42-2, Diethanolamine, uses
     10124-37-5, Calcium nitrate 13780-06-8, Calcium nitrite
                                                                 25119-65-7,
     Maleic anhydride-methyl methacrylate copolymer
                                                      25212-88-8, Ethyl
     acrylate-methacrylic acid copolymer 28061-94-1, Acrylic
     acid-2-ethylhexyl acrylate-styrene-vinyl acetate copolymer
     Butyl acrylate-2-ethylhexyl acrylate-methacrylic acid copolymer
     68183-08-4, Diethyl maleate-ethyl acrylate-methacrylic acid copolymer
     75169-81-2, Hydroxyethyl acrylate-sodium acrylate copolymer
     Acrylic-acid-ethyl methacrylate-methacrylamide copolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (hardening accelerator containing calcium nitrate or calcium nitrite and
        polymer emulsion for rapid hardening concrete and its blowing
        method)
IT
     28061-94-1, Acrylic acid-2-ethylhexyl acrylate-styrene-vinyl
     acetate copolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (hardening accelerator containing calcium nitrate or calcium nitrite and
        polymer emulsion for rapid hardening concrete and its blowing
        method)
     28061-94-1 HCAPLUS
RN
CN
     2-Propenoic acid, polymer with ethenyl acetate, ethenylbenzene and
     2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)
     CM
          1
     CRN 108-05-4
     CMF C4 H6 O2
 Aco-CH-CH2
```

CM 2

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 4

CRN 79-10-7 CMF C3 H4 O2

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L69 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
```

AN 2004:857525 HCAPLUS Full-text

DN 141:336423

TI Polymer-based superplasticizers for concrete and cement mixes

IN Matsumoto, Toshimi; Asmus, Sven; Gerhard, Albrecht; Lorenz, Klaus; Wagner, Petra; Scholz, Christian

PA Construction Research & Technology GmbH, Germany

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.			KIND DATE		APPLICATION NO.					DATE							
							_									_		
ΡI	WO	2004	0876	02		A1 20041014		1	WO 2004-EP2254					20040305				
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	·BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
			TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	AM,	ΑZ,
			BY,	KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,

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PEZZUTO
                      10/551268
                                              9/18/07
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
             SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
    JP 2004307590
                          Α
                                20041104
                                            JP 2003-100709
                                                                   20030403
    CA 2521173
                          Α1
                                20041014
                                            CA 2004-2521173
                                                                   20040305
    EP 1608601
                          A1
                                20051228
                                            EP 2004-717590
                                                                   20040305
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
    BR 2004008974
                         Α
                                20060404
                                           BR 2004-8974
                                                                   20040305
    US 2006247402
                         Α1
                                         US 2005-551268
                                20061102
                                                                   20050929
    MX 2005PA10638
                          Α
                                20051215
                                            MX 2005-PA10638
                                                                   20051003
PRAI JP 2003-100709
                          Α
                                20030403
    WO 2004-EP2254
                          W
                                20040305
AB
     Title cement additive containing copolymers comprises (a) one or more
     constitutional units represented by -CH2C(R1)((OT)nS1m1S2m2OR2)- (formula A ):
     wherein R1 is hydrogen, an alkyl group having 1 to 4 carbon atoms, an alkenyl
     group having 1 to 4 carbon atoms or an aryl group having 6 to 9 carbon atoms;
     R2 is hydrogen or an alkyl group having 1 to 9 carbon atoms, an alkenyl group
     having 1 to 9 carbon atoms or an aryl group having 6 to 9 carbon atoms; T is
     alkylene (including straight-chain and branched alkylene) having 1 to 4 carbon
     atoms or arylene having 6 to 9 carbon atoms; n is 0 or 1; S1 and S2 are,
     independently of one another, -OCkH2k- or -OCH2CHR3-, with the proviso that k
     is 2 or 3, R3 is an alkyl group having 1 to 9 carbon atoms, an aryl group
     having 6 to 9 carbon atoms; and 6 < (m1 + m2) < 25; (b) one or more
     constitutional units represented by (meth)acrylic acid or maleic acid
     anhydride (formula B); and (c) one or more constitutional units represented by
     (meth)acrylates (formula C): (e.g., Me acrylate, hydroxyethyl acrylate, maleic
     acid di-Bu ester). Prescribed amts. of water and monomers for obtaining
     constitutional unit A were introduced into a reaction vessel equipped with a
     thermometer, a stirrer, a reflux condenser and two inlets. While stirring and
     controlling the temperature so that it normally was 30° or less, prescribed
     amts. of hydrogen peroxide, iron sulfate and 3-mercaptopropionic acid or
     similar polymerization catalysts were introduced. Monomers for obtaining
     constitutional unit B and monomers for obtaining constitutional unit C or a
     mixed solution of these monomers to which one or more monomers selected from
     other monomers had been added and which had been prepared in a sep. vessel at
     a prescribed ratio were introduced into the reaction solution at a prescribed
```

IC ICM C04B024-26 ICS C04B024-32

CC 58-3 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST concrete modifier cement polymer superplasticizer

IΤ Cement

Concrete

Concrete modifiers

(polymer-based superplasticizers for concrete and cement mixes)

polycarboxylic acid copolymers comprising vinyl alc.

ΙT Acrylic polymers, preparation

> RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

speed. After a prescribed reaction time, an aqueous solution of caustic soda

was introduced to terminate the reaction. The cement additive further comprising one or more of additive I selected from the group consisting of

(polymer-based superplasticizers for concrete and cement mixes)

IT Plasticizers

> (superplasticizers; polymer-based superplasticizers for concrete and cement mixes)

79-10-7DP, Acrylic acid, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 96-33-3DP, Methyl acrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 105-76-0DP, Maleic acid dibutyl ester, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 108-31-6DP, Maleic anhydride, reaction products with vinyl alc. derivs., and acrylates 818-61-1DP, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 9002-89-5DP, Polyvinyl alcohol, ether derivs., reaction products with maleic anhydride derivs., and acrylates 25584-83-2DP, Hydroxypropyl acrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 27813-02-1DP , Hydroxypropyl methacrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates RL: IMF (Industrial manufacture); MOA (Modifier or additive use) ; PREP (Preparation); USES (Uses) (polymer-based superplasticizers for concrete and cement mixes) IT 79-10-7DP, Acrylic acid, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 96-33-3DP, Methyl acrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 105-76-0DP, Maleic acid dibutyl ester, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 108-31-6DP, Maleic anhydride, reaction products with vinyl alc. derivs., and acrylates 818-61-1DP, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 9002-89-5DP, Polyvinyl alcohol, ether derivs., reaction products with maleic anhydride derivs., and acrylates 25584-83-2DP, Hydroxypropyl acrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates 27813-02-1DP , Hydroxypropyl methacrylate, reaction products with vinyl alc. derivs., maleic anhydride derivs., and acrylates RL: IMF (Industrial manufacture); MOA (Modifier or additive use) ; PREP (Preparation); USES (Uses) (polymer-based superplasticizers for concrete and cement mixes) RN 79-10-7 HCAPLUS CN2-Propenoic acid (CA INDEX NAME) CH CH2 RN96-33-3 HCAPLUS CN 2-Propenoic acid, methyl ester (CA INDEX NAME) 105-76-0 HCAPLUS RN CN 2-Butenedioic acid (2Z)-, 1,4-dibutyl ester (CA INDEX NAME)

Double bond geometry as shown.

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 818-61-1 HCAPLUS

CN 2-Propenoic acid, 2-hydroxyethyl ester (CA INDEX NAME)

RN 9002-89-5 HCAPLUS

CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

H 2 C = C H - O H

RN 25584-83-2 HCAPLUS

CN 2-Propenoic acid, monoester with 1,2-propanediol (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2

CM 2

CRN 57-55-6

CMF C3 H8 O2

он н₃с-сн-сн₂-он

RN 27813-02-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

СH2 || Ме—С—СО2Н

CM 2

CRN 57-55-6 CMF C3 H8 O2

ОН Н3С—СН—СН2—ОН

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:55585 HCAPLUS Full-text

DN 140:115841

TI Graft polyoxyalkylene-based dispersants and hydraulic compositions containing them

IN Ehara, Masanobu; Kojima, Toshiharu; Yadokoro, Yoshiaki; Izumi, Tatsuo

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 2004018337	A	20040122	JP 2002-178187	20020619
	JP 2006104057	Α	20060420	JP 2005-316081	20051031
PRAI	JP 2002-178187	А3	20020619		

AB The dispersions contain polymers having structural repeating units CH2:CR1(CH2)q(CO)pO(AO)nR2, polymers having structural repeating units CH2:CR3(CH2)s(CO)rO(AO)mR4 (R1, R3 = H, Me; R2, R4 = H, C1-5 alkyl; AO = C2-4 oxyalkylene; m, n = 2-50, |m - n| ≥2; p-s = 0, 1) and hydroxycarboxylic acids or their salts. Concrete mixes show good flowability and flowability retention independently of cement types.

IC ICM C04B024-26

ICS B01F017-42; B01F017-52; C04B024-06; C04B028-02

CC 58-2 (Cement, Concrete, and Related Building Materials)

10/551268

Section cross-reference(s): 38

ST graft polyoxyalkylene hydroxycarboxylic acid dispersant concrete; ethylene oxide methacrylic acid graft dispersant cement; sodium gluconate graft polyoxyalkylene dispersant c

IT Concrete

Dispersing agents

(dispersants containing graft polyoxyalkylenes and hydroxycarboxylic acids for hydraulic compns. having good flowability)

IT Cement

(low-heat; dispersants containing graft polyoxyalkylenes and hydroxycarboxylic acids for hydraulic compns. having good flowability)

IT Cement

(portland, slag; dispersants containing graft polyoxyalkylenes and hydroxycarboxylic acids for hydraulic compns. having good flowability)

108-31-6DP, Maleic anhydride, graft polymer with polyethylene glycol alkenyl Me ether 9004-74-4DP, Polyethylene glycol methyl ether, alkenyl ether, graft polymer with maleic anhydride 111740-39-7P, Methacrylic acid-polyethylene glycol methyl ether methacrylate graft copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersants containing graft polyoxyalkylenes and hydroxycarboxylic acids for hydraulic compns. having good flowability)

IT 108-31-6DP, Maleic anhydride, graft polymer with polyethylene
 glycol alkenyl Me ether 9004-74-4DP, Polyethylene glycol methyl
 ether, alkenyl ether, graft polymer with maleic anhydride
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
 ; TEM (Technical or engineered material use); PREP (Preparation); USES
 (Uses)

(dispersants containing graft polyoxyalkylenes and hydroxycarboxylic acids for hydraulic compns. having good flowability)

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1, 2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)

$$\mathsf{HO} = \left[\mathsf{CH}_2 - \mathsf{CH}_2 - \mathsf{O} - \right]_{\mathbf{n}} \mathsf{CH}_3$$

L69 ANSWER 10 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:42465 HCAPLUS Full-text

DN 141:141912

TI Compositions of waterproofing and penetration-inhibiting glue for use in construction and the method therefor

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IN
     Ma, Wanlong
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PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	CN 1353160	Α	20020612	CN 2000-132228	20001110
PRAI	CN 2000-132228		20001110		

AB The waterproofing and penetration-inhibiting coating consists of A and B, wherein A is composed of acrylic acid 28-40, polyurethane 3-10, mica powder 8-12, lithopone 15-25, TiO2 10-17, Al2(SiO3)3 8-12, di-Bu phthalate 1-5, and polyethylene glycol octylphenyl ether 1-5%; B is composed of acrylic acid 20-30, styrene 3-8, Bu methacrylate 3-8, polyvinyl alc. 40-50, vinyl acetate 10-15, tri-Bu phosphate 0.1-0.5, polyacrylate dispersant 2-5, maleic anhydride 0.5-1.5, Na castor oil sulfonate 0.2-1.0, and antiaging agent 0.01-0.03%. method comprises coating matrix layer with A; mixing B with cement, then coating on the substrate 2-6 times.

ICICM C09K003-18

CC 42-7 (Coatings, Inks, and Related Products) Section cross-reference(s): 58

IT Cement

(in compns. of waterproofing construction glue coating)

ΙT 9003-01-4, Poly(acrylic acid) **726169-92-2**, Acrylic acid-butyl methacrylate-maleic anhydride-styrene-vinyl acetate copolymer RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(in compns. of waterproofing construction glue coating)

726169-92-2, Acrylic acid-butyl methacrylate-maleic IΤ

anhydride-styrene-vinyl acetate copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(in compn's. of waterproofing construction glue coating)

RN 726169-92-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenyl acetate, ethenylbenzene, 2,5-furandione and 2-propenoic acid (9CI) (CA INDEX NAME)

CM7

CRN 108-31-6 CMF C4 H2 O3



CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$

CM 4

CRN 97-88-1 CMF C8 H14 O2

O CH2 n-BuO-C-C-Me

CM 5

CRN 79-10-7 CMF C3 H4 O2

HO_C_CH__CH2

L69 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:298858 HCAPLUS Full-text

DN 138:291569

TI Rapid-setting agents for spray concretes, rapid-setting cement concretes, and method for their spray application on vertical surfaces

IN Nakajima, Yasuhiro; Mizushima, Kazuyuki; Morioka, Minoru; Yamamoto, Kenji; Takahashi, Mitsuo

PA Denki Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

FAN.CNI I										
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE						
PI JP 2003112956	A	20030418	JP 2001-311316	20011009						
JP 3701224	В2	20050928								
PRAI JP 2001-311316		20011009		•						

AB The agents contain water-soluble Group IVB, preferably Ti or Zr, element compds. and alkaline-thickening polymer emulsions. Cement concretes

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containing the agents show excellent sagging resistance and excellent
     strengthening properties.
IC
    ICM C04B024-26
    ICS C04B022-06; C04B022-08; C04B022-10; C04B022-12; C04B022-14;
          C04B028-00; E02D017-20; E02B007-06; C04B018-08; C04B014-10;
         C04B014-28; C04B018-14; C04B014-48; C04B014-42; C04B016-06;
         C04B111-00
CC
    58-2 (Cement, Concrete, and Related Building
ST
    cement concrete rapid setting agent; Group IVB compd
    concrete rapid setting agent; alk thickening polymer emulsion
    cement additive; spray application cement
    concrete sagging prevention
ΙT
    Setting agents
        (accelerators; rapid-setting agents containing Group IVB compds. and
       alkali-thickening polymer emulsions for spray concretes and
        their application)
ΙT
    Group IVB element compounds
    RL: MOA (Modifier or additive use); TEM (Technical or engineered material
    use); USES (Uses)
        (rapid-setting agents containing Group IVB compds. and alkali-thickening
       polymer emulsions for spray concretes and their application)
TΤ
    Concrete
        (spray application of; rapid-setting agents containing Group IVB compds.
       and alkali-thickening polymer emulsions for spray concretes
       and their application)
    7705-07-9, Titanium trichloride, uses
                                             13825-74-6
                                                          14644-61-2, Zirconium
              15823-43-5, Hafnium sulfate 25119-65-7, Maleic
    anhydride-methyl methacrylate copolymer 25212-88-8, Ethyl
    acrylate-methacrylic acid copolymer 31071-53-1, Butyl
    acrylate-2-ethylhexyl acrylate-methacrylic acid copolymer
    54579-45-2, Acrylic acid-ethyl acrylate-2-ethylhexyl
    acrylate-vinyl acetate copolymer 68183-08-4, Diethyl maleate-ethyl
    acrylate-methacrylic acid copolymer
                                          75169-81-2, Hydroxyethyl
    acrylate-sodium acrylate copolymer
                                          338390-99-1, Acrylic acid-ethyl
    methacrylate-methacrylamide copolymer
    RL: MOA (Modifier or additive use); TEM (Technical or engineered
    material use); USES (Uses)
        (rapid-setting agents containing Group IVB compds. and alkali-thickening
       polymer emulsions for spray concretes and their application) .
ΙT
    54579-45-2, Acrylic acid-ethyl acrylate-2-ethylhexyl
    acrylate-vinyl acetate copolymer
    RL: MOA (Modifier or additive use); TEM (Technical or engineered
    material use); USES (Uses)
        (rapid-setting agents containing Group IVB compds. and alkali-thickening
       polymer emulsions for spray concretes and their application)
RN
    54579-45-2 HCAPLUS
CN
    2-Propenoic acid, polymer with ethenyl acetate, 2-ethylhexyl 2-propenoate
    and ethyl 2-propenoate (CA INDEX NAME)
    CM
    CRN 140-88-5
    CMF C5 H8 O2
```

CM

108-05-4 CRN CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 103-11-7 CMF C11 H20 O2

CM

CRN 79-10-7 CMF C3 H4 O2

-CH == CH2

L69 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

ΑN 2003:143309 HCAPLUS Full-text

DN 138:191995

ΤI Hardening accelerators for shotcretes, rapid-setting shotcretes, and method for shotcreting

IN Nakajima, Yasuhiro; Mizushima, Kazuyuki; Morioka, Minoru; Yamamoto, Kenji; Takahashi, Mitsuo

PΑ Denki Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DTPatent

LA Japanese

FAN.CNT 1

raw.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	JP 2003055013	A	20030226	JP 2001-247149	20010816	
PRAI	JP 2001-247149		20010816			

Hardening accelerators containing soluble silicate salts and alkalinethickening polymer emulsion are claimed. Cement concrete (i.e. cement pastes, mortar, and concrete) containing the agents and its application by mixing with the agent by pumping are also claimed. Application of the **cement concrete** on vertically placed frames is also claimed. The shotcrete compns. have enough working life for finishing with a trowel, but can be placed without sagging.

IC ICM C04B022-08

ICS C04B024-26; C04B028-02; E02D017-20; C04B022-08; C04B018-14; C04B014-48; C04B103-14

CC 58-2 (Cement, Concrete, and Related Building

Materials)

Section cross-reference(s): 37

IT Concrete modifiers

(hardening accelerator; rapid-setting shotcretes containing acrylic polymer emulsions and silicates as hardening accelerators and their application)

IT Concrete

Mortar

(shotcrete; rapid-setting shotcretes containing acrylic polymer emulsions and silicates as hardening accelerators and their application)

IT 25119-65-7, Maleic anhydride-methyl methacrylate copolymer 25212-88-8, Ethyl acrylate-methacrylic acid copolymer 28061-94-1 31071-53-1, Butyl acrylate-2-ethylhexyl acrylate-methacrylic acid copolymer 68183-08-4, Diethyl maleate-ethyl acrylate-methacrylic acid

copolymer 68183-08-4, Diethyl maleate-ethyl acrylate-methacrylic acid copolymer 75169-81-2, Hydroxyethyl acrylate-sodium acrylate copolymer 338390-99-1

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(emulsion, hardening accelerator containing; rapid-setting shotcretes containing acrylic polymer emulsions and silicates as hardening accelerators and their application)

IT 28061-94-1

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(emulsion, hardening accelerator containing; rapid-setting shotcretes containing acrylic polymer emulsions and silicates as hardening accelerators and their application)

RN 28061-94-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, ethenylbenzene and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 2

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 100-42-5 CMF C8 H8

H 2 C === C H == P h

CM 4

CRN 79-10-7 CMF C3 H4 O2

L69 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:900604 HCAPLUS Full-text

DN 137:388234

TI Hardening accelerator for blowing, rapid hardening cement concrete, and its blowing method

IN Nakajima, Yasuhiro; Mizushima, Kazuyuki; Morioka, Minoru; Yamamoto, Kenji; Takahashi, Mitsuo; Teramura, Satoru

PA Denki Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	JP 2002338316	A	20021127	JP 2001-214966	20010716	
PRAT	TP 2001-64509	70.	20010308			

AB A hardening accelerator for blowing contains a rapid hardening material, an acrylic acid ester copolymer emulsion, and optionally water, a water-reducing agent, inorg. powder, and fibers. The rapid hardening material is preferably Al sulfate. The hardening accelerator is transported by pumping, mixed with cement concrete, and blown to steel frames. Sagging and falling of the cement concrete after blowing are prevented.

IC ICM C04B024-26

ICS C04B022-14; C04B028-02; E02D017-20; C04B111-70

CC 58-2 (Cement, Concrete, and Related Building Materials)

ST aluminum sulfate acrylic acid ester copolymer hardening accelerator

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concrete
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IT Setting agents

> (accelerators; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

10/551268

Polyolefin fibers IΤ

RL: TEM (Technical or engineered material use); USES (Uses) (ethylene; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

IT Ashes (residues)

> (fly; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

ΙT Concrete

> (hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

IT Bentonite, uses

Fibers

Vinal fibers

RL: TEM (Technical or engineered material use); USES (Uses) (hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

ΙT Limestone, uses

> RL: TEM (Technical or engineered material use); USES (Uses) (powder; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

ΙT Metallic fibers

> RL: TEM (Technical or engineered material use); USES (Uses) (steel; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

IT Concrete modifiers

> (water-reducing agents; hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

IT 7631-86-9, Silica, uses 10043-01-3, Aluminum sulfate 25212-88-8, Ethyl acrylate-methacrylic acid copolymer 27155-33-5, Maleic acid-methyl methacrylate copolymer 28061-94-1 29354-65-2 31071-53-1 75169-81-2, Hydroxyethyl acrylate-sodium acrylate copolymer 476302-00-8 RL: TEM (Technical or engineered material use); USES (Uses) (hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

TΤ 28061-94-1

> RL: TEM (Technical or engineered material use); USES (Uses) (hardening accelerator containing aluminum sulfate and acrylic acid ester copolymer emulsion for blowing cement concrete and its blowing method)

RN 28061-94-1 HCAPLUS

2-Propenoic acid, polymer with ethenyl acetate, ethenylbenzene and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM1

CRN 108-05-4 C4 H6 O2 CMF

 $AcO-CH \longrightarrow CH_2$

CM 2

CRN 103-11-7 CMF C11 H20 O2

CH2-O-C-CH=CH2
Et-CH-Bu-n

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 4

CRN 79-10-7 CMF C3 H4 O2

O HO_ C_ CH ___ CH2

L69 ANSWER 14 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:847628 HCAPLUS <u>Full-text</u>

DN 137:328504

TI Method for spraying concrete mixture on slope with polymer thickening agent

IN Nakajima, Yasuhiro; Mizushima, Kazuyuki; Morioka, Minoru; Yamamoto, Kenji; Takahashi, Mitsuo

PA Denki Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

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JP 2002321960
                                             JP '2001-129162
                          Α
                                20021108
                                                                    20010426
PRAI JP 2001-129162
                                 20010426
AΒ
     The title process comprises spraying a cement concrete mixture and an alkali-
     thickening-type polymer emulsion. Also claimed process comprises pumping the
     above polymer emulsion and then mixing with the concrete mixture for spraying
     on a slope. The emulsion may be obtained by polymerizing an unsatd.
     carboxylic acid with an ethylenic unsatd. compound The resulting slope has
     good appearance.
IC
     ICM C04B028-02
     ICS C04B024-26; E02D017-20
CC
     58-2 (Cement, Concrete, and Related Building
ST
     alkali thickening polymer emulsion cement concrete
     spraying
IT
     Concrete
     Spraying
     Thickening agents
        (spraying of concrete mixture on slope with
        alkali-thickening-type polymer emulsion)
TΤ
     25119-65-7P, Maleic anhydride-methyl methacrylate copolymer
                                                                    25212-88-8P,
     Ethyl acrylate-methacrylic acid copolymer 28803-94-3P
     31071-53-1P, Butyl acrylate-2-ethylhexyl acrylate-methacrylic acid
                 68183-08-4P, Diethyl maleate-ethyl acrylate-methacrylic acid
                 75169-81-2P, Hydroxyethyl acrylate-sodium acrylate copolymer
     copolymer
     338390-99-1P
     RL: MOA (Modifier or additive use); PNU (Preparation,
     unclassified); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (spraying of concrete mixture on slope with
        alkali-thickening-type polymer emulsion)
     28803-94-3P
TΤ
     RL: MOA (Modifier or additive use); PNU (Preparation,
     unclassified); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (spraying of concrete mixture on slope with
        alkali-thickening-type polymer emulsion)
RN
     28803-94-3 HCAPLUS
CN
     2-Propenoic acid, 2-methyl-, polymer with ethenyl acetate, ethenylbenzene
     and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)
     CM
          1
     CRN
         108-05-4
     CMF
          C4 H6 O2
 AcO-CH \longrightarrow CH2
     CM
          2
     CRN
         103-11-7
     CMF
         C11 H20 O2
```

CM 3

CRN 100-42-5 CMF C8 H8

H 2 C === C H == P h

CM 4

CRN 79-41-4 CMF C4 H6 O2

L69 ANSWER 15 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:464086 HCAPLUS Full-text

DN 137:36706

TI Water-reducing agents for **cement**, and **cement** mix compositions

IN Matsui, Tatsuya; Ito, Akinori; Yoshimatsu, Eijiro

PA NOF Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 2002173351	A	20020621	JP 2000-369102	20001204
PRAI	JP 2000-369102		20001204		

The water-reducing agents, for **cement** mix compns., contain copolymers which contain unsatd. carboxylic acid (derivs.) comonomers CH2:CR1R2 (R1 = H, Me; R2 = XOCOR3; X = single bond or methylene; R3 = C1-5 hydrocarbyl) and have polyoxyalkylene side chains. The copolymers may further contain polyoxyalkylene comonomers R4O(AO)nR5 (R4 = C2-5 alkenyl; R5 = H, C1-8 hydrocarbyl; AO = C2-4 oxyalkylene whose ≥50 mol.% is occupied by oxyethylene; n = 1-300), and maleic acid (derivs.) comonomers at a prescribed mol. ratio. The **cement** mix compns. show high fluidity especially at low temperature and low slump loss, and give high-strength **cement**.

IC ICM C04B024-26

ICS C04B024-26; C04B024-04; C04B024-32; C08F218-04; C08F222-00; C08F290-06; C04B103-30

```
58-2 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
ST
     cement water reducing agent unsatd carboxylic acid copolymer;
     polyoxyalkylenel alkenyl ether copolymer cement water reducing
     agent; maleic acid copolymer cement water reducing agent
     Cement
IT
       Concrete
        (water-reducing agents for cement mix compns.)
IT
     Concrete modifiers
        (water-reducing agents; water-reducing agents for cement mix
        compns.)
ΙT
     108065-75-4P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (water-reducing agents for cement mix compns.)
IT
     334918-43-3P
                     437611-19-3P 437611-21-7P
                                                    437611-23-9P
                                                                    437611-24-0P
     437615-76-4P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (water-reducing agents for cement mix compns.)
ΙT
     437615-76-4P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (water-reducing agents for cement mix compns.)
RN
     437615-76-4 HCAPLUS.
     Acetic acid ethenyl ester, polymer with \alpha-[(2Z)-3-carboxy-1-oxo-2-
CN
     propenyl]-\omega-methoxypoly(oxy-1,2-ethanediyl) and \alpha-methyl-
     ω-(2-propenyloxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)
     CM
          1
     CRN
          31833-82-6
     CMF
          (C2 H4 O)n C5 H6 O4
     CCI
          PMS
 HO_2C-CH CH-\overset{\overset{\smile}{U}}{C} CH_2-CH_2 O-CH_2 O-CH_2
          2
     CM
```

27252-80-8 CRN

(C2 H4 O)n C4 H8 O CMF

CCI **PMS**

$$H_2C = CH - CH_2 - O - CH_2 - CH_2 - O - n$$
 Me

CM 3 CRN 108-05-4 CMF C4 H6 O2

```
AcO-CH \longrightarrow CH_2
```

```
ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ΑN
    2002:462402 HCAPLUS Full-text
     137:51095
    The use of polycarboxylate-based flowing agents for anhydrite-based
TΙ
     flowing lines
ΙN
     Holland, Uwe; Friedrich, Stefan; Plank, Johann; Prosiegel, Klaus;
     Schuhbeck, Thomas
    SKW Polymers GmbH, Germany
PΑ
    Ger. Offen., 14 pp.
SO
    CODEN: GWXXBX
DT
    Patent
LA
    German
FAN.CNT 1
                 KIND DATE APPLICATION NO. DATE
    PATENT NO.
     _____
    WO 2002049983 A1
                        A1 20020620 DE 2000-10063291
A1 20020627 WO 2001-EP14897
PΙ
                                                                  20001219
                                                                  20011217
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2002031716
                         A5
                                20020701
                                         AU 2002-31716
                                                                   20011217
PRAI DE 2000-10063291
                         Α
                                20001219
    WO 2001-EP14897
                         W
                                20011217
     The use of polycarboxylate-based flowing agents is described. The flowing
     agents contain water-soluble copolymers for anhydrite-based flowing lines. The
     advantages of the used eluent include: the good flowing and process
     characteristics of the correspondingly manufactured anhydrite-based flowing
     lines and the fact that with very small dosage a long lasting workability can
     be attained.
IC
     ICM C04B024-26
     ICS C08F220-18; C08F222-04; C08F222-10; C08F222-38; C08F220-54;
         C08F226-10; C08F230-02
     58-6 (Cement, Concrete, and Related Building
    Materials)
ST
     superplasticizer mortar cement gypsum workability
TΤ
     Cement
     Mortar
        (use of polycarboxylate-based flowing agents for anhydrite-based
        flowing lines)
     438244-47-4, Ethylene glycol monovinyl ether-maleic
     anhydride-polyethylene glycol methyl ether maleate copolymer
     RL: MOA (Modifier or additive use); USES (Uses)
        (superplasticizer; use of polycarboxylate-based flowing agents for
        anhydrite-based flowing lines)
```

IT 438244-47-4, Ethylene glycol monovinyl ether-maleic anhydride-polyethylene glycol methyl ether maleate copolymer RL: MOA (Modifier or additive use); USES (Uses) (superplasticizer; use of polycarboxylate-based flowing agents for anhydrite-based flowing lines)

RN 438244-47-4 HCAPLUS

CN 2,5-Furandione, polymer with α -[(2Z)-3-carboxy-1-oxo-2-propenyl]- ω -methoxypoly(oxy-1,2-ethanediyl) and 2-(ethenyloxy)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 31833-82-6

CMF (C2 H4 O)n C5 H6 O4

CCI PMS

$$HO_2C-CH$$
 CH CH CH_2-CH_2 CH_2 CH_2 CH_2

CM 2

CRN 764-48-7 CMF C4 H8 O2

HO-CH2-CH2-O-CH-CH2

CM 3

CRN 108-31-6 CMF C4 H2 O3

L69 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:228596 HCAPLUS <u>Full-text</u>

DN 136:264594

TI Coatings having aqueous resin layers

IN Kawai, Isao; Fujii, Masato

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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PEZZUTO
                      10/551268
                                               9/18/07
PΤ
     JP 2002086627
                                20020326
                          Α
                                            JP 2000-285120
                                                                    20000920
PRAI JP 2000-285120
                                20000920
     Coatings comprise an aqueous resin layer and a toplayer having Shore D
     hardness >50. Thus, concrete was coated with a composition containing a 50%
     aqueous emulsion of acrylic acid-\beta-methacryloyloxyethyltrimethylsilan e-Me
     methacrylate-Veova 10 copolymer ammonium salt 100, Nopco 8034L 0.2, and CaCO3
     100 parts and topcoated with PF 570E570.
IC
     ICM B32B027-08
     ICS B32B027-40
     42-10 (Coatings, Inks, and Related Products)
     Section cross-reference(s): 58
     concrete vinyl polymer undercoating
ST
IT
     Polyurethanes, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (acrylic; coatings having aqueous resin layers on concrete)
IT
     Concrete
     Emulsions
        (coatings having aqueous resin layers on concrete)
IT
     Vinyl compounds, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (polymers; coatings having aqueous resin layers on concrete)
ΙT
     Acrylic polymers, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyurethane-; coatings having aqueous resin layers on concrete)
ΙT
     Coating materials
        (topcoats; coatings having aqueous resin layers on concrete)
IT
     Coating materials
        (undercoatings; coatings having aqueous resin layers on concrete)
TΤ
     40481-53-6P, Acrylic acid-2-ethylhexyl acrylate-vinyl acetate
     copolymer ammonium salt 404888-84-2P
                                           404888-87-5P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (coatings having aqueous resin layers on concrete)
IT
     194429-23-7, Voncoat CG 5030
                                   250228-31-0, Vondic 2210
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (coatings having aqueous resin layers on concrete)
     214619-56-4, HF 3000 396659-85-1, PF 570E570
TΤ
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (coatings having aqueous resin layers on concrete)
ΤТ
     40481-53-6P, Acrylic acid-2-ethylhexyl acrylate-vinyl acetate
     copolymer ammonium salt 404888-84-2P
     RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
     engineered material use); PREP (Preparation); USES (Uses)
        (coatings having aqueous resin layers on concrete)
     40481-53-6 HCAPLUS
RN
     2-Propenoic acid, polymer with ethenyl acetate and 2-ethylhexyl
CN
     2-propenoate, ammonium salt (9CI) (CA INDEX NAME)
```

CRN 26634-78-6

1

CMF (C11 H20 O2 . C4 H6 O2 . C3 H4 O2)x

CCI PMS

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 3

CRN 103-11-7 CMF C11 H20 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

RN 404888-84-2 HCAPLUS

CN tert-Decanoic acid, ethenyl ester, polymer with methyl 2-methyl-2-propenoate, 2-propenoic acid and 2-(trimethylsilyl)ethyl 2-methyl-2-propenoate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 404888-83-1

CMF (C12 H22 O2 . C9 H18 O2 Si . C5 H8 O2 . C3 H4 O2) \times

CCI PMS

CM 2

CRN 95049-21-1 CMF C9 H18 O2 Si

CRN 26544-09-2 CMF C12 H22 O2

CCI IDS

 $(\text{tert-C9H}_{19}) = \overset{0}{\text{C}} = 0 - \text{CH} = \text{CH}_{2}$

CM 4

CRN 80-62-6 CMF C5 H8 O2

H2C O Me—C—C—OMe

CM 5

CRN 79-10-7 CMF C3 H4 O2

о но_ С_ СН <u>—</u> СН2

L69 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:608765 HCAPLUS <u>Full-text</u>

DN 136:185432

TI Neo vinyl ester latexes for wood, metal and concrete coating applications

AU Yang, H. W.; Smith, J. L.; Hester, J. R.; Li, J.; Smith, O. W.; Thames, S.

CS ExxonMobil Chemical Company, Baytown, TX, 77520, USA

SO Proceedings of the International Waterborne, High-Solids, and Powder Coatings Symposium (2001), 28th, 61-76 CODEN: PIWCF4

PB University of Southern Mississippi, Dep. of Polymer Science

DT Journal

LA English

AB Neo vinyl esters (VE) can be copolymd. with vinyl acetate (VA) and acrylic monomers in various combinations to provide improved coating performance. The improved performance is primarily due to the steric structure and hydrophobic character of the VE monomers. For interior coatings, VE/VA copolymers provide excellent scrub, water and stain resistance. Exterior coatings over concrete, wood, and metal substrates based on VE/VA or VE/Acrylic copolymers offer excellent weathering, water and corrosion resistance.

CC 42-13 (Coatings, Inks, and Related Products)

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Section cross-reference(s): 58
```

ST neo vinyl ester latex wood metal concrete coating

IT Coating materials

(anticorrosive; neo vinyl ester latexes for wood, metal and concrete coating applications)

9/18/07

IT Coating materials

(latex; neo vinyl ester latexes for wood, metal and concrete coating applications)

IT Concrete

Luster

Paints

Storage modulus

Wood

(neo vinyl ester latexes for wood, metal and concrete coating applications)

IT Water vapor

(transmission of; neo vinyl ester latexes for wood, metal and concrete coating applications)

IT 12597-69-2, Steel, uses

RL: NUU (Other use, unclassified); USES (Uses)

(cold-roll, substrate; neo vinyl ester latexes for wood, metal and concrete coating applications)

IT 239091-10-2, Butyl acrylate-Exxar Neo 12-vinyl acetate copolymer 239091-10-2D, hydrolyzed 239091-12-4, Exxar Neo 12-vinyl acetate copolymer 239091-13-5, Acrylic acidbutyl acrylate-Exxar Neo 12-methyl methacrylate copolymer

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(neo vinyl ester latexes for wood, metal and concrete coating applications)

IT 9002-86-2, PVC

RL: TEM (Technical or engineered material use); USES (Uses) (paint formulations; neo vinyl ester latexes for wood, metal and concrete coating applications)

IT 239091-13-5, Acrylic acidbutyl acrylate-Exxar Neo 12-methyl methacrylate copolymer

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(neo vinyl ester latexes for wood, metal and concrete coating applications)

RN 239091-13-5 HCAPLUS

CN Neododecanoic acid, ethenyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 122615-61-6 CMF C14 H26 O2

CCI IDS

O U — CH — CH2

CM 2

CRN 141-32-2

CMF : C7 H12 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

 H_2C O H_2C O H_2C O H_2C O H_2C O H_2C O H_2C

CM 4

CRN 79-10-7 CMF C3 H4 O2

о || | но<u>-</u> С— СН <u>—</u> СН2

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 19 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:36840 HCAPLUS Full-text

DN 134:104820

TI Liquid **cement** dispersant for inhibiting drying shrinkage of concrete

IN Sugiyama, Tomomi; Matsuo, Shigeharu; Ishimori, Masaki; Hayashi, Hiroshi

PA NMB K. K., Japan; Taiheiyo Cement Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

AB The title dispersant contains (1) a graft polymer having carboxylic acids or their salts as side chains, part of which are connected to ≥1 of compound having shrinkage-inhibiting properties and (2) ≥1 of water-reducing compound or ≥1 of shrinkage-inhibiting compound Preferably, the shrinkage-inhibiting compound is selected from oligoalkylene glycols and/or polyalcs. The dispersant has high storage stability, and concrete obtained by using the agent shows low air-entering.

IC ICM C04B024-26

```
PEZZUTO
                      10/551268
                                               9/18/07
     ICS C04B024-26; C04B024-02; C04B103-40; C04B103-60
CC
     58-2 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
ST
     cement dispersant graft polycarboxylic acid shrinkage inhibitor;
     oligoalkylene glycol drying shrinkage inhibitor cement
     dispersant; polyalc shrinkage drying inhibitor cement
     dispersant; storage stability cement dispersant drying shrinkage
     inhibitor; water reducing agent shrinkage inhibitor concrete
     modifier
ΙT
     Polyoxyalkylenes, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (acrylic, graft; liquid cement dispersant comprising modifier
        and polycarboxylic graft polymer connected to shrinkage-inhibiting
        compound)
ΤТ
     Concrete
     Dispersing agents
        (liquid cement dispersant comprising modifier and
        polycarboxylic graft polymer connected to shrinkage-inhibiting compound)
ΙT
     Glycols, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (oligo, monoalkyl ether, shrinkage-inhibiting compound; liquid
        cement dispersant comprising modifier and polycarboxylic graft
        polymer connected to shrinkage-inhibiting compound)
ΙT
     Ethers, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
        (pentenyl, polymers with maleic anhydride; liquid cement
        dispersant comprising modifier and polycarboxylic graft polymer
        connected to shrinkage-inhibiting compound)
ΙT
     Carboxylic acids, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (polycarboxylic, salts, water-reducing agent; liquid cement
        dispersant comprising modifier and polycarboxylic graft polymer
        connected to shrinkage-inhibiting compound)
ΙT
     Polyoxyalkylenes, properties
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses.)
        (polymers with carboxy-containing unsatd. monomers, graft; liquid
        cement dispersant comprising modifier and polycarboxylic graft
        polymer connected to shrinkage-inhibiting compound)
ΙT
     Concrete modifiers
        (shrinkage-inhibiting agent; liquid cement dispersant
        comprising modifier and polycarboxylic graft polymer connected to
        shrinkage-inhibiting compound)
IT
     Concrete modifiers
        (water-reducing agents; liquid cement dispersant comprising
        modifier and polycarboxylic graft polymer connected to
        shrinkage-inhibiting compound)
```

79-41-4D, Methacrylic acid, derivs., graft polymers with polyalkylene glycols 100-42-5D, Styrene, polymers with carboxy-containing unsatd. monomers and polyalkylene glycols, graft 107-18-6D, Allyl alcohol, polymers with carboxy-containing unsatd. monomers and polyalkylene glycols, graft 108-31-6D, Maleic anhydride, polymers with carboxy-containing unsatd. monomers and polyalkylene glycols, graft 9004-74-4D, Polyethylene glycol monomethyl ether, polymers with carboxy-containing unsatd. monomers, polyalkylene glycols, and unsatd.

monomers, graft 319482-60-5D, GE 42-2P, polymers with carboxy-containing unsatd. monomers, polyalkylene glycols, and unsatd. monomers, graft RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(liquid **cement** dispersant comprising modifier and polycarboxylic graft polymer connected to shrinkage-inhibiting compound) 187112-08-9, Tetra Guard AS 21

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(shrinkage-inhibiting agent; liquid **cement** dispersant comprising modifier and polycarboxylic graft polymer connected to shrinkage-inhibiting compound)

IT 115-77-5, Pentaerythritol, properties 126-30-7, Neopentyl glycol 1115-20-4, Neopentyl glycol hydroxypivalate monoester 26762-52-7, Hexanediol 29348-79-6, Pentanediol RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

10/551268

(shrinkage-inhibiting compound; liquid **cement** dispersant comprising modifier and polycarboxylic graft polymer connected to shrinkage-inhibiting compound)

IT 140229-20-5, Rheobuild SP 8N

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(water-reducing agent; liquid **cement** dispersant comprising modifier and polycarboxylic graft polymer connected to shrinkage-inhibiting compound)

TT 79-41-4D, Methacrylic acid, derivs., graft polymers with polyalkylene glycols 108-31-6D, Maleic anhydride, polymers with carboxy-containing unsatd. monomers and polyalkylene glycols, graft 9004-74-4D, Polyethylene glycol monomethyl ether, polymers with carboxy-containing unsatd. monomers, polyalkylene glycols, and unsatd. monomers, graft

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(liquid **cement** dispersant comprising modifier and polycarboxylic graft polymer connected to shrinkage-inhibiting compound) 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (CA INDEX NAME)

RN

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), α -methyl- ω -hydroxy- (CA INDEX NAME)

L69 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

10/551268

AN 2000:819130 HCAPLUS Full-text

DN 134:8309

TI Cement additives for reducing air entraining and improving fluidity

IN Yuasa, Tsutomu; Nagare, Koichiro; Kawakami, Hirokatsu; Hirata, Takeshi

PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000319054	Α	20001121	JP 1999-303803	19991026
PRAI	JP 1999-61329	A	19990309		

The cement additives contain copolymers prepared by polymerizing monomer mixts. containing polyalkylene glycol ester monomer CH2=C(R1)COO(R2O)nR3 (R2=H or Me, R2O= ≥1 C2-18 oxyalkylene groups, R3=C1-30 hydrocarbon, n=2-300) 0.01-4, polyalkylene glycol ester monomer CH2=C(R4)COO(R5O)mR5 (R4=H or Me, R5O=≥1 C2-18 oxyalkylene, R6=C1-30 hydrocarbon, m=2-300) 5-96.99, carboxylic acid monomer CH2=C(R7)COOM (R7=H or Me, M=H, monovalent metal, divalent metal, or organic amine) 3-94.9, and other comonomer 0-50 weight%.

IC ICM C04B024-26

ICS C04B024-26; C08F220-06; C08F220-26; C08F290-06; C04B103-30; C04B103-32

CC 58-2 (Cement, Concrete, and Related Building

Materials)

Section cross-reference(s): 38

ST polymeric **cement** additive fluidity improvement; air entraining redn polymeric **cement** additive

Concrete

Mortar

(polymeric **cement** additives for reducing air entraining and improving fluidity)

296776-20-0, Methacrylic acid-methoxypolyethylene glycol monomethacrylate-nonyloxypolypropylene polyethylene glycol monomethacrylate copolymer 296776-24-4, Heptadecanoxypolypropylene glycol polyethylene glycol monomethacrylate-methacrylic acid-methoxypolyethylene glycol monomethacrylate-methyl methacrylate copolymer 296776-27-7, Ethyl-vinyl etherheptadecanoxypolypropylene glycol polyethylene glycol monomethacrylatemethacrylic acid-methoxypolyethylene glycol monomethacrylate copolymer 296776-30-2, Heptadecanoxypolypropylene glycol polyethylene glycol monomethacrylate-methacrylic acid-methoxypolyethylene glycol monomethacrylate-styrene copolymer 296776-33-5, Heptadecanoxypolypropylene glycol polyethylene glycol monomethacrylatemethacrylic acid-methoxypolyethylene glycol monomethacrylate copolymer 308140-99-0 308239-00-1, Methacrylic acid-methoxypolyethylene glycol monomethacrylate-methoxypolypropylene polyethylene glycol monomethacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(polymeric **cement** additives for reducing air entraining and improving fluidity)

IT 296776-27-7, Ethyl-vinyl ether-heptadecanoxypolypropylene glycol polyethylene glycol monomethacrylate-methacrylic acid-methoxypolyethylene glycol monomethacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (polymeric cement additives for reducing air entraining and improving fluidity)

RN 296776-27-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethoxyethene, methyloxirane polymer with oxirane mono(2-methyl-2-propenoate) heptadecyl ether, and α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

CM 2

CRN 109-92-2 CMF C4 H8 O

H3C-CH2-O-CH-CH2

CM 3

CRN 79-41-4 CMF C4 H6 O2

СН2 || Ме— С— СО2Н

CM 4

CRN 296776-23-3

CMF C17 H36 O . C4 H6 O2 . (C3 H6 O . C2 H4 O) x

CM 5

CRN 1454-85-9

Me- (CH2)16-OH

CM 6

CRN 79-41-4 CMF C4 H6 O2

CMF C17 H36 O

CH2 Me_C_CO2H

CM

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) \times

CCI **PMS**

> CM 8

CRN 75-56-9 CMF C3 H6 O

CM 9

CRN 75-21-8 CMF C2 H4 O

- L69 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
- 2000:790437 HCAPLUS <u>Full-text</u> ΑN
- DN 133:354099
- TIAcrylic copolymer agents based on urethane for improving the workability of hydraulic binders, and their preparation
- ΙN Kensicher, Yves; Suau, Jean-Marc
- PA Coatex S.A., Fr.
- SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent LA French

FAN.CNT 1

	PATENT NO.					KIND DATE			APPLICATION NO.						DATE				
PI	PI WO 2000066511				A1 20001109			WO 2000-FR1081							20000425				
		W:	AU,	BA,	BG,	BR,	CA,	CN,	CZ,	HR,	ΗU	J,	ID,	IN,	JP,	KR,	MX,	NO,	NZ,
			PL,	RO,	RU,	SI,	SK,	TR,	US,	YU									
		RW:	AT,	BE,	CH,	CY,	DE,	DK,	ES,	FΙ,	FF	٦,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,
			PT,	SE															
	FR	2792	932			A1	20001103				FR	19	999-	5665			19990430		
	FR	2792	932			В1		2001	0706										
	TW	5741	66			В		2004	0201		TW	20	000-	8910	7133		2	0000	417
	CA	2372	479			A1		2000	1109		CA	20	000-	2372	479		2	0000	425
	ΕP	1194	390			A1		2002	0410		EΡ	20	000-	9227.	32		2	0000	425
	EΡ	1194	390			В1		2004	0303										
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GE	٦,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
				SI,		RO													
		2608				${ m T}$		2004		AT 2000-922732						20000425			
		6660						2003			US 2002-959568							0020	129
		2004		07				2004		US 2003-636673						2	0030	808	
		7064				В2		2006											
		2006				A1		2006			US	20	005-	1982	79		2	0050	808
PRAI		1999						1999											
		2000						2000											
		2002						2002											
7\ D		2003					, ,	2003		,					_	_			

Workability agents for hydraulic binders consist of copolymers obtained by radical copolymn. of ethylenic alkoxy polyethylene glycol urethanes, anionic monomers, nonionic monomers, and optionally alkoxy polyethylene glycol acrylates. The workability agents are capable of modifying the rheol. characteristics of mortars, concrete and other cement-based compns.

Workability may be defined as the property of a hydraulic binder to remain workable for as long as possible. The invention concerns novel agents of the acrylic copolymer type with urethane functions to improve the workability of hydraulic binders, their preparation method, binders containing them and their use. The agents have the property of not delaying setting time. An agent was prepared from a urethane acrylate monomer (from methoxy polyethylene glycol, TDI, and ethylene glycol monoacrylate), acrylamide, ethylene glycol methacrylate phosphate, and Et acrylate.

IC ICM C04B024-32

ICS C04B024-28; C04B024-26

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 37

IT Cement (construction material)

(acrylic copolymer agents based on urethane for improving the workability of hydraulic binders, and their preparation)

IΤ 79-06-1DP, Acrylamide, polymers with urethane acrylates 79-41-4DP , Methacrylic acid, polymers with urethane acrylates 140-88-5DP, Ethyl acrylate, polymers with urethane acrylates 306283-32-9P 306283-35-2P 306284-22-0P 306283-37-4P 306284-19-5P 306284-20-8P 306284-21-9P 306284-23-1P 306284-24-2P 306284-26-4P 306284-28-6P 306284-30-0P 306284-32-2P 306284-34-4P 306284-36-6P 306284-38-8P RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM

(Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic copolymer agents based on urethane for improving the workability of hydraulic binders, and their preparation)

IT 818-61-1DP, Ethylene glycol monoacrylate, urethane acrylates,

ΙT

polymers 4098-71-9DP, Isophorone diisocyanate, urethane acrylates, polymers 9004-74-4DP, Methoxy polyethylene glycol, urethane acrylates, polymers 306283-30-7P 306284-16-2P 306284-17-3P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(acrylic copolymer agents based on urethane for improving the
workability of hydraulic binders, and their preparation)
79-41-4DP, Methacrylic acid, polymers with urethane acrylates
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic copolymer agents based on urethane for improving the workability of hydraulic binders, and their preparation)

RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (CA INDEX NAME)

IT 818-61-1DP, Ethylene glycol monoacrylate, urethane acrylates, polymers 9004-74-4DP, Methoxy polyethylene glycol, urethane acrylates, polymers

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(acrylic copolymer agents based on urethane for improving the workability of hydraulic binders, and their preparation)

RN 818-61-1 HCAPLUS

CN 2-Propenoic acid, 2-hydroxyethyl ester (CA INDEX NAME)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 22 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:705076 HCAPLUS Full-text

DN 133:270573

TI Concrete additive for controlling flowability

IN Hirata, Tsuyoshi; Yuasa, Tsutomu; Nagare, Koichiro; Kawakami, Hirokatsu

PA Nippon Shokubai Co., Ltd., Japan

SO Eur. Pat. Appl., 40 pp. CODEN: EPXXDW

DT Patent

LA English

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FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                                -----
                         ----
PΙ
    EP 1041053
                                20001004
                         A 1
                                          EP 2000-400645
                                                                   20000309
     EP 1041053
                         В1
                                20060802
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2001192250
                         Α
                                20010717
                                            JP 2000-64302
                                                                   20000309
    US 6545083
                         В1
                                20030408
                                            US 2000-522300
                                                                   20000309
PRAI JP 1999-61337
                         Α
                                19990309
     JP 1999-303797
                         Α
                                19991026
     The concrete additive comprises a copolymer (A) obtained by polymerizing a
AB
     monomer mixture containing a polyalkylene glycol ester monomer (I) represented
     by the general formula (1), a polyalkylene glycol ester monomer (II)
     represented by the general formula (2), and a carboxylic acid monomer (III)
     represented by the general formula (3). The additive is added with water into
     cementitious concrete and mortar mixes containing an air-entraining agent to
     increase the flowability retaining effect. The amount of entrained air can be
     reduced from 7.2% to 1.3-5.4% without decreasing the mortar flowability. The
     storage stability tests showed no ppts. after a month storage of the mortar.
IC
     ICM C04B024-26
     ICS C08F220-06
CC
     58-2 (Cement, Concrete, and Related Building
    Materials)
     Section cross-reference(s): 38
ST
     concrete mortar cement flowability polymer additive
IT
     Concrete modifiers
        (air-entraining agents; polymeric additive for controlling flowability
        of concretes or mortars)
IT
     Concrete
     Mortar
        (controlled flowability of; polymeric additive for controlling
        flowability of concretes or mortars)
IT
     Concrete modifiers
        (for flowability control; polymeric additive for controlling
        flowability of concretes or mortars)
     Cement (construction material)
IΤ
        (polymeric additive for controlling flowability of concretes
        or mortars)
ΙT
     296776-22-2
                   296776-26-6 296776-29-9
                                             296776-32-4
     296776-35-7
                   296789-12-3
     RL: MOA (Modifier or additive use); USES (Uses)
      (polymeric additive for controlling flowability of concretes
        or mortars)
ΙT
    296776-29-9
     RL: MOA (Modifier or additive use); USES (Uses)
        (polymeric additive for controlling flowability of concretes
        or mortars)
     296776-29-9 HCAPLUS
RN
CN
     2-Propenoic acid, 2-methyl-, telomer with ethoxyethene,
     3-mercaptopropanoic acid, methyloxirane polymer with oxirane
    mono(2-methyl-2-propenoate) heptadecyl ether, and \alpha-(2-methyl-1-oxo-
     2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), sodium salt (9CI)
     (CA INDEX NAME)
     CM
     CRN
         296776-28-8
          (C17 H36 O . C4 H8 O . C4 H6 O2 . C4 H6 O2 . (C3 H6 O . C2 H4 O)x .
```

(C2 H4 O)n C5 H8 O2)x . C3 H6 O2 S

CRN 107-96-0 CMF C3 H6 O2 S

HS-CH2-CH2-CO2H

CM 3

CRN 296776-27-7

CMF (C17 H36 O . C4 H8 O . C4 H6 O2 . C4 H6 O2 . (C3 H6 O . C2 H4 O)x . (C2 H4 O)n C5 H8 O2)x

CCI PMS

CM 4

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$\begin{array}{c|c}
\text{H2C} & \text{O} \\
\text{Me} - \text{C} - \text{C} - \frac{1}{\text{C}} & \text{O} - \text{CH}_2 - \text{CH}_2 - \frac{1}{\text{n}} & \text{OMe}
\end{array}$$

CM 5

CRN 109-92-2 CMF C4 H8 O

H3C-CH2-O-CH-CH2

CM 6

CRN 79-41-4 CMF C4 H6 O2

 $Me-C-CO_2H$

CM 7

CRN 296776-23-3

9/18/07

54

CMF C17 H36 O . C4 H6 O2 . (C3 H6 O . C2 H4 $\dot{\text{O}}$) x

CM 8

CRN 1454-85-9 CMF C17 H36 O

Me- (CH2)16-OH

CM 9

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

CM 10

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 11

CRN 75-56-9 CMF C3 H6 O

CH3

CM 12

CRN 75-21-8 CMF C2 H4 O

 $^{\circ}$

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 23 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

KATHLEEN FULLER EIC1700

571/272-2505

- AN 2000:160988 HCAPLUS Full-text
- DN 132:211706
- TI Surfactant composition and its use as a dispersing agent in concrete
- IN Yamato, Fuzio; Sato, Takahiro; Hamada, Daisuke
- PA Kao Corporation, Japan
- SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

LWM.	↑FA T	1																	
	PA"	rent	NO.			KIND DATE				APPLICATION NO.						DATE			
ΡI	EΡ	9839	76			A1 20000308					EΡ	1999-	19990831						
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI, L	J, NL,	SE,	MC,	PT,		
			ΙE,	SI,	LT,	LV,	FI,	, RO											
	JP 2000143314 JP 3188245				A 20000523 B2 20010716				JP	1999-		19990226							
								0716											
	CN	1246	461			Α		2000	0308		CN	1999-	118364		1	9990	901		
PRAI	PRAI JP 1998-247088					A 19980901													
	JP 1999-51233					A 19990226													

- The present invention provides a surfactant composition which is suitable for AB a concrete admixt. giving stable fluidity to concrete regardless of variation in kneading-time. That is, the present invention provides a surfactant composition comprising (a) a copolymer of a monomer mixture including a monomer having the formula CH(R1):C(R2)(CH2)m1CO2(AO)nX and preferably at least one co-monomer selected from the group consisting of co-monomers having the formulas C(R3)(R5):C(R4)(CH2)m2CO2M1 and CH2:C(R6)CH2SO3Y resp., and comprising (b) a water-soluble salt of an aromatic sulfonic acid, at a specific ratio; in which R1 and R2 are hydrogen atom or Me, m1 is an integer of zero to 2, (AO) is an oxyalkylene having 2 or 3 carbon atoms, n is a number of 2 to 300 and X is hydrogen atom or an alkyl having 1 to 3 carbon atoms; in which R4 and R6 are hydrogen atom or methyl; R3 and R5 are hydrogen atom, Me or M2O(CO)(CH2)m3; M1, M2 and Y are hydrogen atom, an alkali metal, an alkaline earth metal, ammonium or a mono-, di- or tri-alkylammonium which may be substituted by hydroxide group; and m2 and m3 are an integer of zero to 2.
- IC ICM C04B024-26
- CC 58-2 (Cement, Concrete, and Related Building Materials)
- ST surfactant dispersing agent concrete
- IT Concrete

Dispersing agents

Surfactants

(surfactant composition and its use as a dispersing agent in concrete)

IT Acrylic polymers, uses

RL: MOA (Modifier or additive use); USES (Uses) (surfactant composition and its use as a dispersing agent in concrete)

TT 79-41-4D, Methacrylic acid, polymers 868-77-9D, polymers 1561-92-8D, Sodium methallyl sulfonate, polymers 3105-55-3D, Mono sodium maleate, polymers 5536-61-8D, Sodium methacrylate, polymers 9004-74-4D, polymers 122525-42-2, Mighty 150V-2 260429-25-2, Gralion S 8

RL: MOA (Modifier or additive use); USES (Uses) (surfactant composition and its use as a dispersing agent in concrete)

TT 79-41-4D, Methacrylic acid, polymers 868-77-9D, polymers
9004-74-4D, polymers

RL: MOA (Modifier or additive use); USES (Uses)

(surfactant composition and its use as a dispersing agent in concrete)

RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (CA INDEX NAME)

RN 868-77-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester (CA INDEX NAME)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:120885 HCAPLUS Full-text

DN 132:167174

TI Redispersible vinyl polymer emulsion powders and their manufacture

IN Sugaya, Mamoru; Katsuki, Masami; Uebori, Soichi; Okayasu, Katsuyuki; Igarashi, Shin

PA Clariant Polymer K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

L'AN'	~IA I	Τ																	
	PAT	CENT :	NO.			KIN	D	DATE		i	APP	LIC	CAT	ION	NO.		D	ATE	
							-												
PI	I JP 2000053711 TW 483899					Α		2000	0222		JΡ	19	98-	2272	38		19980811		
						В		2002	20020421			19	99-1	8811	3567		19990809		
	WO 2000009589						A1 20000224 WO 1999-JP4356								19990811				
	•	W:	CN,	KR,	US														
		RW:	AT,	BE,	CH,	CY,	DE,	, DK,	ES,	FI,	FR	, (GΒ,	GR,	ΙE,	ΙT,	LU,	MC,	NL,
			PT,	SE		-													
	ΕP	1038	903			A1 20000927 EP 1999-937034							19990811						
•	EΡ	1038	903			B1 20060927													
		R:	AT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	GR	ξ, .	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	FI,	CY														
	CN	1120	855			B 20030910 CN 1999-801317							1	9990	811				
	AT 340820					T		20061015 AT 1999-937034						19990811					
PRAI	JP	1998	-227	238		A		1998	0811										

WO 1999-JP4356 W 19990811

AB Title powders, useful for cement admixts., adhesives, coatings, etc., comprise vinyl copolymer particles and anion-modified vinyl alc. polymers adsorbed on the surfaces of the particles. Thus, Me methacrylate 50, Bu acrylate 50, and methacrylic acid 3 part were polymerized in the presence of sulfonic acid-modified vinyl alc. polymer (Gohseran L 3266) and dried to give an emulsion power showing good mixability with cement.

IC ICM C08F002-24

ICS C08F002-44; C08F006-14; C08F008-00

CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 58

ST redispersible emulsion powder manuf **cement** admixt; vinyl copolymer particle polyvinyl alc adsorbed; polymethacrylate particle sulfonate polyvinyl alc adsorbed

> (admixts. for; redispersible vinyl polymer emulsion powders for cement)

IT 25035-69-2P, Butyl acrylate-methacrylic acid-methyl methacrylate copolymer 143478-80-2P, Butyl acrylate-methacrylic acid-methyl

methacrylate-Veova 10 copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(redispersible vinyl polymer emulsion powders for cement)

IT 9002-89-5D, Poly(vinyl alcohol), sulfonic acid- or carboxyl-modified
52410-51-2, Gohsenal T 330 97048-76-5, Gohsenan L 3266
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(redispersible vinyl polymer emulsion powders for cement)

IT 143478-80-2P, Butyl acrylate-methacrylic acid-methyl

methacrylate-Veova 10 copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(redispersible vinyl polymer emulsion powders for cement)

RN 143478-80-2 HCAPLUS

CN tert-Decanoic acid, ethenyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 26544-09-2 CMF C12 H22 O2 CCI IDS

O (tert-C9H19) — C — O — CH === CH2

CM 2

CRN 141-32-2 CMF C7 H12 O2

0 n-BuO-C-CH-CH2

CRN 80-62-6 CMF C5 H8 O2

H₂C O Me—C—C—OMe

CM 4

CRN 79-41-4 CMF C4 H6 O2

СH₂ || ме—С—СО₂н

L69 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:548726 HCAPLUS Full-text

DN 131:261439

TI Synthesis of calcium silicate hydrate/polymer complexes: Part I. Anionic and nonionic polymers

AU Matsuyama, Hiroyoshi; Young, J. Francis

CS Center for Advanced Cement-Based Materials, University of Illinois at Urbana-Champaign, Urbana, IL, 61801, USA

SO Journal of Materials Research (1999), 14(8), 3379-3388 CODEN: JMREEE; ISSN: 0884-2914

PB Materials Research Society

DT Journal

LA English

AB High mol. weight anionic polymers have been incorporated into the calcium silicate hydrate (C-S-H) structure during precipitation of quasi-crystalline C-S-H from aqueous solution The anionic polymers studied were poly(methacrylic acid), poly(acrylic acid), and the sodium salt of poly(vinyl sulfonic acid). Expansion of the interlayer spacing coupled with high-carbon contents confirmed that the polymers intercalated between the layers. D-gluconic acid behaves similarly. Intercalation characteristics strongly depended on both the type of polymer and Ca/Si molar ratio of C-S-H; intercalation reached a maximum at an initial Ca/Si = 1.3 in all cases. Poly(vinyl alc.) was the only nonionic polymer among those studied that was incorporated into C-S-H. Evidence for interlayer intercalation is less definite. The C-S-H/polymer complexes were examined by Fourier transform IR spectroscopy, 29Si NMR magic angle spinning, and 13C cross-polarization, magic angle spinning NMR spectroscopy.

CC 58-1 (Cement, Concrete, and Related Building

Materials)

Section cross-reference(s): 38

IT Cement (construction material)

(portland; synthesis of calcium silicate hydrate intercalation complexes with anionic and nonionic polymers and gluconic acid)

IT 110-15-6DP, Succinic acid, intercalation with calcium silicate hydrate

110-16-7DP, Maleic acid, intercalation with calcium silicate hydrate 526-95-4DP, D-Gluconic acid, intercalation products with calcium silicate hydrate 9002-89-5DP, Poly(vinyl alcohol), intercalation product with calcium silicate hydrate 9003-01-4DP, Poly(acrylic acid), intercalation product with calcium silicate hydrate 9003-39-8DP, Polyvinylpyrrolidone, intercalation product with calcium silicate hydrate 25053-27-4DP, Poly(vinyl sulfonic acid) sodium salt, intercalation product with calcium silicate hydrate 25087-26-7DP, Poly(methacrylic acid), intercalation product with calcium silicate hydrate 25322-68-3DP, Poly(ethylene oxide), intercalation product with calcium silicate hydrate 30551-89-4DP, Poly(allylamine), intercalation product with calcium silicate hydrate

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of calcium silicate hydrate intercalation complexes with anionic and nonionic polymers and gluconic acid)

1T 110-16-7DP, Maleic acid, intercalation with calcium silicate
 hydrate 9002-89-5DP, Poly(vinyl alcohol), intercalation product
 with calcium silicate hydrate

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of calcium silicate hydrate intercalation complexes with anionic and nonionic polymers and gluconic acid)

RN 110-16-7 HCAPLUS

CN 2-Butenedioic acid (2Z) - (CA INDEX NAME)

Double bond geometry as shown.

RN 9002-89-5 HCAPLUS (CA INDEX NAME)

CM 1

CRN 557-75-5 CMF C2 H4 O

 $H \circ C = CH - OH$

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:511114 HCAPLUS Full-text

DN 131:148156

TI Concrete hardening retarder

IN Ikuta, Toru; Mutsuda, Mitsuteru

PA Daicel-Huels Ltd., Japan

SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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____
PΙ
     WO 9940041
                          Α1
                                19990812
                                            WO 1999-JP516
                                                                   19990205
         W: AU, BR, CA, CN, ID, KR, SG, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     CA 2286199
                          Α1
                                19990812
                                            CA 1999-2286199
                                                                    19990205
     AU 9922997
                          Α
                                            AU 1999-22997
                                19990823
                                                                    19990205
     AU 753326
                          В2
                                20021017
     JP 11314954
                                19991116
                          Α
                                            JP 1999-28427
                                                                    19990205
     EP 974562
                          Α1
                                20000126
                                            EP 1999-902849
                                                                    19990205
         R: DE, FR, GB, IT
     US 6730764
                                            US 1999-402537
                          В1
                                20040504
                                                                    19991215
PRAI JP 1998-25296
                          Α
                                19980206
     WO 1999-JP516
                          W
                                19990205
AB
     A concrete hardening retarder comprises a polymer (A) having the ability to
     retard concrete hardening. The polymer (A) comprises structural units derived
     from an ingredient capable of bringing about a glass transition temperature
     (Tg) of \leq -5^{\circ}. The retarder has a surface tension of 45 mN/m or lower.
     content of those units is .apprx.10% or higher based on the whole polymer (A).
     The polymer (A) has a functional group capable of forming a salt with a metal
     ion (especially a free acid group or a group capable of generating an acid
     group through hydrolysis). The polymer (A) may be a vinyl polymer, a
     polyester (saturated or unsatd. polyester), or a cross-linked or graft polymer
     obtained from an unsatd. polyester. A sheet or decorative-material pack may
     be formed from the retarder. By use of the retarder, sheet, pack, or the
     like, the stain removability and washability of tile-adhered concrete panels
     are improved.
IC
     ICM C04B024-28
     ICS C04B024-26; C04B103-22; B28B001-14; B28B011-02; E04F013-08
CC
     58-2 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
ST
     vinyl polymer concrete hardening retarder; polyester
     concrete hardening retarder
ΙT
     Polyesters, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (concrete hardening retarders containing)
IT
     Polymers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (graft; concrete hardening retarders containing)
IT
     Concrete
        (hardening retarders containing vinyl polymers or polyesters for)
ΙT
     Vinyl compounds, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polymers; concrete hardening retarders containing)
IT
     111488-39-2 235114-58-6
                               235114-59-7 235114-60-0
     RL: TEM (Technical or engineered material use); USES (Uses)
        (concrete hardening retarders containing)
IT
     235114-58-6
     RL: TEM (Technical or engineered material use); USES (Uses)
        (concrete hardening retarders containing)
RN
     235114-58-6 HCAPLUS
CN
     2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenyl
     acetate, 2-ethylhexyl 2-propenoate, 2,5-furandione and 1,2-propanediol
     (9CI) (CA INDEX NAME)
     CM
          1
     CRN
         868-77-9
```

C6 H10 O3

CMF

$$^{\text{H2C}}_{\text{Me}-\text{C}-\text{C}-\text{C}-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}}$$

CRN 108-31-6 CMF C4 H2 O3

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH-CH_2$

CM 4

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \text{CH}_2 - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \\ \text{Et} - \text{CH} - \text{Bu} - \text{n} \end{array}$$

CM 5

CRN 57-55-6 CMF C3 H8 O2

он нзс_сн_сн2_он

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
PEZZUTO
                     10/551268
                                            9/18/07
    ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
     1999:139770 HCAPLUS Full-text
ΑN
DN
     130:183244
TΙ
    Thickening agents from polymers containing carboxy and carboxamide groups
ΙN
    Weitzel, Hans-Peter; Braunsperger, Robert
    Wacker-Chemie GmbH, Germany
PΑ
SO
    Eur. Pat. Appl., 11 pp.
     CODEN: EPXXDW
DT
    Patent
LA
    German
FAN.CNT 1
    PATENT NO. KIND
                              DATE
                                         APPLICATION NO.
                                                               DATE
                       ----
                                          -----
    EP 897937
PΤ
                       A1
                              19990224 EP 1998-114363
                                                                19980730
    EP 897937 B1 20000322
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    DE 19735736
                       A1
                              19990225
                                          DE 1997-19735736
                                                                19970818
    AT 190987
                        T
                              20000415
                                          AT 1998-114363
                                                                19980730
                           2000002
19990608
20000124
    ES 2144887
                       Т3
                                         ES 1998-114363
                                                                19980730
                       Α
    JP 11152302
                                          JP 1998-230553
                                                                19980817
     JP 3002182
                       B2 20000124
    BR 9803767
                       A
                              19991214
                                         BR 1998-3767
                                                                19980817
    US 6197871
                                          US 2000-500946
                       B1
                             20010306
                                                                20000115
PRAI DE 1997-19735736
                       Α
                              19970818
    US 1998-129006 B1
                              19980804
     Water-soluble polymers with low viscosity and good storage stability for
AB
     thickening agents are prepared by emulsion or suspension polymerization of
     carboxy-containing ethylenically unsatd. monomers 30-70, carboxamide group-
     containing ethylenically unsatd. monomers 10-70, and other ethylenically
     unsatd. monomers 0.1-30% in the presence of a protective colloid. Emulsion
     polymerization of acrylamide 147.4, acrylic acid 44.2, and Bu acrylate 17.7 g
     in the presence of partially esterified poly(vinyl alc.) gave a dispersion
     with solids content 10.8%, particle size 354 nm, viscosity 450 mPa-s, and very
     good stability. A mortar composition containing Portland cement, quartz sand,
     and the polymer dispersion had a vertical flow of 10, 4, 1.5 and 1 cm after 1,
     3, 5, and 10 min, resp.
IC
    ICM C08F220-04
     ICS C08F220-54
CC
    37-3 (Plastics Manufacture and Processing)
    Section cross-reference(s): 38, 58
```

9002-89-5D, Poly(vinyl alcohol), partially esterified IT

RL: TEM (Technical or engineered material use); USES (Uses) (protective colloid; emulsion and suspension preparation of carboxy and

carboxamide group-containing polymer dispersions for thickening agents) ΙT 79-10-7D, Acrylic acid, polymers 79-41-4D, Methacrylic

9003-39-8, Poly(vinylpyrrolidone) acid, polymers RL: TEM (Technical or engineered material use); USES (Uses)

(protective colloid; thickening agents from carboxy and carboxamide group-containing polymer dispersions containing)

IT 9002-89-5D, Poly(vinyl alcohol), partially esterified

RL: TEM (Technical or engineered material use); USES (Uses)

(protective colloid; emulsion and suspension preparation of carboxy and carboxamide group-containing polymer dispersions for thickening agents)

RN9002-89-5 HCAPLUS

CNEthenol, homopolymer (CA INDEX NAME)

> CM1

CRN 557-75-5

CMF C2 H4 O

 $H_2C \longrightarrow CH - OH$

IT 79-10-7D, Acrylic acid, polymers 79-41-4D, Methacrylic acid, polymers

RL: TEM (Technical or engineered material use); USES (Uses) (protective colloid; thickening agents from carboxy and carboxamide group-containing polymer dispersions containing)

RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (CA INDEX NAME)

HO_C_CH_CH2

RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (CA INDEX NAME)

СН₂ || Ме—С—СО₂н

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:675368 HCAPLUS Full-text

DN 129:346482

TI Short fiber to reinforce lightweight aerated concrete

IN Shigeno, Haruo; Murayama, Sadamitsu; Matsui, Yukikage

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 1

PATENT N	O. KIND	DATE	APPLICATION NO.	DATE
			ATTEMENT NO.	
PI JP 10279	335 A	19981020	JP 1997-82604	19970401
PRAI JP 1997-	82604	19970401		

AB The title article comprises fibers which can retain strength ≥70% when immersed in an alkali solution with pH 13 at 160° for 10 h. Fibers are bound by a water-soluble sizing agent to form fiber bundles, which must be disintegrated into monofilaments when immersed in water within the period of time from 3 s to 3 min. Thus, 1.0 weight% aramid fiber bundles bound by KP 2007 (nylon-based size) (1500 denier/1000 filaments) with length 12 mm was mixed into a mixture comprising ground silica stone, CaO, cement, Al powder and water, cast into a mold, aerated and autoclaved at 180° for 10 h to give fiber reinforced aerated concrete with bulk sp. gr. 0.53 and bending strength 48.9 kg/cm2.

IC ICM C04B016-06

10/551268

```
ICS C04B038-00; D01F006-60
     58-2 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 40
ST
     aerated concrete fiber reinforcement autoclaving; sizing aramid
     fiber lightwt concrete
ΙT
     Polyamide fibers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (aramid, Technora T 200; sized short fiber to reinforce lightweight
        aerated concrete)
ΙT
     Concrete
        (fiber-reinforced; sized short fiber to reinforce lightweight aerated
        concrete)
ΙT
     Concrete
        (lightwt.; sized short fiber to reinforce lightweight aerated
        concrete)
ΙT
     Polyethers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyamide-, aromatic, fiber; sized short fiber to reinforce lightweight
        aerated concrete)
ΙT
     Polyethers, uses
     Polyethers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyamide-, fiber, aromatic; sized short fiber to reinforce lightweight
        aerated concrete)
IT
     Synthetic polymeric fibers, uses
     Synthetic polymeric fibers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyamide-polyethers, aromatic; sized short fiber to reinforce
        lightweight aerated concrete)
ΙT
     Polyamides, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyether-, aromatic, fiber; sized short fiber to reinforce lightweight
        aerated concrete)
IΤ
     Polyamide fibers, uses
     Polyamide fibers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (polyether-, aromatic; sized short fiber to reinforce lightweight aerated
        concrete)
ΙT
     Concrete
        (porous; sized short fiber to reinforce lightweight aerated
        concrete)
ΙT
     Sizes (agents)
        (sized short fiber to reinforce lightweight aerated concrete)
IT
     9002-89-5D, PolyVinyl alcohol, polymers
     RL: MOA (Modifier or additive use); USES (Uses)
        (OSK 9013G, sizing agent; sized short fiber to reinforce lightweight
        aerated concrete)
ΙT
     66559-37-3, 3,4'-Diaminodiphenyl ether-p-phenylenediamine-terephthalic
     acid copolymer
     RL: MOA (Modifier or additive use); USES (Uses)
        (fiber; sized short fiber to reinforce lightweight aerated
        concrete)
TΤ
     79-10-7D, 2-Propenoic acid, derivs., polymers, uses
                                                            120146-86-3,
               215512-83-7, Plascize RD 122
     RL: MOA (Modifier or additive use); USES (Uses)
        (sizing agent; sized short fiber to reinforce lightweight aerated
        concrete)
     9002-89-5D, PolyVinyl alcohol, polymers
IT
     RL: MOA (Modifier or additive use); USES (Uses)
```

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PEZZUTO
                      10/551268
                                               9/18/07
        (OSK 9013G, sizing agent; sized short fiber to reinforce lightweight
        aerated concrete)
RN
     9002-89-5 HCAPLUS
CN
     Ethenol, homopolymer (CA INDEX NAME)
    CM
          1
         557-75-5
    CRN
     CMF C2 H4 O
 H_2C \longrightarrow CH - OH
IT
     79-10-7D, 2-Propenoic acid, derivs., polymers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (sizing agent; sized short fiber to reinforce lightweight aerated
        concrete)
RN
     79-10-7 HCAPLUS
CN
     2-Propenoic acid (CA INDEX NAME)
 HO-C-CH-CH2
L69 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
AN
     1998:214605 HCAPLUS Full-text
DN
     128:260865
TI
     Cement admixtures made of poly(vinyl alcohol)-type polymers
     Nagao, Masahiro; Sato, Sumiaki
ΙN
PΑ
     Kuraray Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF
DT
     Patent
T.A
     Japanese
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ----
                                             JP 1996-245902
PΙ
     JP 10087937
                          Α
                                19980407
                                                                    19960918
PRAI JP 1996-245902
                                19960918
     The cement admixts. comprise poly(vinyl alc.)-type polymers which are ≥60%-
     soluble in saturated Ca(OH)2 solns. at 40°. The admixts. give cement compns.
     with excellent bending strength, compression hardness, surface hardness, etc.
     ICM C08L029-04
TC
     ICS C08F016-06; C08F222-02
     58-1 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
ST
     polyvinyl alc cement admixt bending strength
ΙT
     Cement (construction material)
        (portland; cement admixts. made of poly(vinyl alc.)-type
        polymers)
TT
     97-65-4D, Itaconic acid, reaction products with poly(vinyl alc.)
```

110-16-7D, Maleic acid, reaction products with poly(vinyl alc.) 9002-89-5, Poly(vinyl alcohol) 9002-89-5D, Poly(vinyl alcohol),

9/18/07

acid-modified

RL: TEM (Technical or engineered material use); USES (Uses) (cement admixts. made of poly(vinyl alc.)-type polymers)

IT 110-16-7D, Maleic acid, reaction products with poly(vinyl alc.)

9002-89-5D, Poly(vinyl alcohol), acid-modified

RL: TEM (Technical or engineered material use); USES (Uses) (cement admixts. made of poly(vinyl alc.)-type polymers)

RN 110-16-7 HCAPLUS

CN 2-Butenedioic acid (2Z)- (CA INDEX NAME)

Double bond geometry as shown.

но2С Z СО2Н

RN 9002-89-5 HCAPLUS

CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

CRN 557-75-5 CMF C2 H4 O

H2C == CH-OH

L69 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:699117 HCAPLUS Full-text

DN 127:335661

TI Modified poly(vinyl alcohol) sizes and **cement** reinforcement fibers thereof

IN Nishiguchi, Hiroshi; Watanabe, Toshio; Kitada, Akira

PA Daiichi Kogyo Seiyaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 09278503	A	19971028	JP 1996-83667	19960405		
PRAI	JP 1996-83667		19960405				

AB The sizes contain modified poly(vinyl alcs.) with anionic groups, preferably those obtained by Michael addition of poly(vinyl alc.) and vinyl compds. followed by hydrolysis. Reinforcement fibers coated with the sizes are also claimed. The sizes show good film formability and the films on fibers can be easily dissolved in cement compns., thereby offering homogeneous dispersion of monofilaments.

IC ICM C04B020-10

ICS C04B014-38; C04B016-06; D06M015-333

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38, 40

ST polyvinyl alc size cement reinforcement fiber; vinyl polyvinyl

```
10/551268
     alc Michael addn size
     Polyamide fibers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (aramid; modified poly(vinyl alc.) sizes and cement
        reinforcement fibers thereof)
TΤ
     Sizes (agents)
        (modified poly(vinyl alc.) sizes and cement reinforcement
        fibers thereof)
IT
     Acrylic fibers, uses
     Vinal fibers
     RL: TEM (Technical or engineered material use); USES (Uses)
        (modified poly(vinyl alc.) sizes and cement reinforcement
        fibers thereof)
IT
     Cement (construction material)
        (portland; modified poly(vinyl alc.) sizes and cement
        reinforcement fibers thereof)
     79-06-1DP, Acrylamide, Michael addition product with poly(vinyl alc.)
ΤТ
     107-13-1P, Acrylonitrile, preparation 108-31-6DP, Maleic
     anhydride, reaction products with poly(vinyl alc.) 9002-89-5DP,
     Poly(vinyl alcohol), carboxy-modified 9003-20-7DP, Poly(vinyl acetate),
     saponified 15214-89-8DP, 2-Acrylamido-2-methylpropanesulfonic acid, Michael
     addition product with poly(vinyl alc.)
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (modified poly(vinyl alc.) sizes and cement reinforcement
        fibers thereof)
ΤТ
     108-31-6DP, Maleic anhydride, reaction products with poly(vinyl
     alc.) 9002-89-5DP, Poly(vinyl alcohol), carboxy-modified
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (modified poly(vinyl alc.) sizes and cement reinforcement
        fibers thereof)
     108-31-6 HCAPLUS
RN
     2,5-Furandione (CA INDEX NAME)
CN
RN
     9002-89-5 HCAPLUS
CN
     Ethenol, homopolymer (CA INDEX NAME)
     CM
          1
    CRN 557-75-5
     CMF C2 H4 O
```

 $H2C \longrightarrow CH - OH$

L69 ANSWER 31 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN ΑN 1997:90363 HCAPLUS Full-text DN 126:105681 Polymers modified with cyclodextrin derivatives containing N heterocycles, and their use

10/551268

```
Hirsenkorn, Rolf; Reuscher, Helmut; Haas, Wolfgang
PA
     Consortium fuer Elektrochemische Industrie G.m.b.H, Germany
SO
     Ger. Offen., 30 pp.
     CODEN: GWXXBX
DT
     Patent
LA
    German
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
                         ----
                                            _____
PΙ
     DE 19520989
                         A1
                                19961212
                                            DE 1995-19520989
                                                                   19950608
PRAI DE 1995-19520989
                                19950608
OS MARPAT 126:105681
     The heterocycles are the typical fiber-reactive groups found in reactive dyes,
     e.g., halotriazines and halopyrimidines, and they permit the attachment of
     cyclodextrin complex-forming functionality to other polymers. Aqueous
     dispersions of the modified polymers can serve as binders for paper, coatings,
     and cement.
IC
     ICM C08B037-16
     ICS C04B026-28; C04B024-38; D21H017-24; C08L005-16; C09J105-16;
          C09D105-16; D06M017-00; C09D005-34
    A01N025-10; C09K015-04; D06M015-03; C08G063-91; C08G069-48; C08G073-02;
     C08G008-28; C08G012-40; C08G018-83; C08G059-14; C08G077-388
CC
     44-5 (Industrial Carbohydrates)
     Section cross-reference(s): 37, 42, 43, 58
ST
     polymer modification cyclodextrin deriv; paper binder cyclodextrin
     modified polymer; coating cyclodextrin modified polymer; cement
     binder cyclodextrin modified polymer
ΙT
     Concrete
     Mortar
     Paper
     Spackling compound
        (polymers modified with cyclodextrin derivs. containing N heterocycles as
        binders for)
     24937-78-8P, Ethylene-vinyl acetate copolymer
IΤ
                                                     25037-33-6P,
     Acrylamide-butyl acrylate-styrene copolymer
                                                   33773-82-9P,
     Acrylamide-acrylic acid-sodium vinylsulfonate copolymer
     185846-51-9P, Acrylic acid-ethylene-2-hydroxyethyl acrylate-vinyl
     acetate-vinyl laurate copolymer
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (preparation in presence of cyclodextrin derivs. containing reactive N
        heterocycles)
IT
     185846-50-8P, Acrylic acid-2-ethylhexyl acrylate-methyl
     methacrylate-N-methylolacrylamide-vinyl acetate-vinyl laurate copolymer
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (preparation in presence of polymer modified with cyclodextrin derivs.
        containing reactive N heterocycles)
ΙT
     185846-51-9P, Acrylic acid-ethylene-2-hydroxyethyl acrylate-vinyl
     acetate-vinyl laurate copolymer
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (preparation in presence of cyclodextrin derivs. containing reactive N
        heterocycles)
RN
     185846-51-9 HCAPLUS
     Dodecanoic acid, ethenyl ester, polymer with ethene, ethenyl acetate,
CN
     2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)
     CM
          1
     CRN 2146-71-6
     CMF C14 H26 O2
```

CRN 818-61-1 CMF C5 H8 O3

HO-CH2-CH2-O-CH-CH2-CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 74-85-1 CMF C2 H4

 $H_2C \longrightarrow CH_2$

IT 185846-50-8P, Acrylic acid-2-ethylhexyl acrylate-methyl
 methacrylate-N-methylolacrylamide-vinyl acetate-vinyl laurate copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation in presence of polymer modified with cyclodextrin derivs.
 containing reactive N heterocycles)

RN 185846-50-8 HCAPLUS

CN Dodecanoic acid, ethenyl ester, polymer with ethenyl acetate, 2-ethylhexyl

2-propenoate, N-(hydroxymethyl)-2-propenamide, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2146-71-6 CMF C14 H26 O2

$$H_2C = CH - O - C - (CH_2)_{10} - Me$$

CM 2

CRN 924-42-5 CMF C4 H7 N O2

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 4

CRN 103-11-7 CMF C11 H20 O2

$$CH_2 - O - C - CH = CH_2$$
 $Et - CH - Bu - n$

CM 5

CRN 80-62-6 CMF C5 H8 O2 H2C O Me—C—C—OMe

> CM 6 (CRN 79-10-7 CMF C3 H4 O2

о но_ C_ CH <u>— C</u>H₂

L69 ANSWER 32 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN. 1996:718139 HCAPLUS Full-text

DN 125:329778

TI Copolymers of oxyalkyleneglycol alkenyl ethers and derivatives of unsaturated dicarboxylic acids as additives for hydraulic binders

IN Albrecht, Gerhard; Weichmann, Josef; Penkner, Johann; Kern, Alfred

PA Skw Trostberg Aktiengesellschaft, Germany

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

ĽZ	ZIA . CIA I	1														
	PA	TENT	NO.			KIND DATE			AP	PLICA	DATE					
							-									
Ρ.		7365				A2			1009	EP	1996	1996	0404			
	EP	7365	53			A3		1998	0107							
	EF	7365	53			В1		2001	0620				,			
		R:	AT,	BE,	CH,	DE,	DK,	, ES,	FI,	FR, G	B, IT	, LI	, NL,	SE		
	DE	1951	3126			A1		1996	1010	DE	1995	-195	13126	5	1995	0407
	NC	9601	258			Α		1996	1008	NO	1996	5-125	8		1996	0328
	NC	3192	48			В1		2005	0704							
	CA	2173	570			A1		1996	1008	CA	1996	5-217	3570		1996	0404
	ΑT	2023	68			T		2001	0715	AT	1996	-105	446		1996	0404
	ES	2158	180			Т3		2001	0901	ES	1996	5-105	446		1996	0404
	HU	9600	903			A2		1997	0428	HU	1996	5-903	;		1996	0405
	PL	1868	44			В1		2004	0331	PL	1996	5-313	654		1996	0405
	JF	0828	3350			Α		1996	1029	JP	1996	855	40		1996	0408
	JP	3429	410			В2		2003	0722							
	BR	9601	288			Α		1998	0113	BR	1996	5-128	8		1996	0408
	US	5798	425	,		A		1998	0825	US	1996	628	057		1996	0408
Ρl	RAI DE	1995	-195	1312	6	A		1995								
					_											

The title polymers, useful as additives for hydraulic binders (especially cement), are prepared from oxyalkylene glycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids of specified structure. Aqueous redox polymerization of 0.334 mol maleic anhydride with 0.310 mol polyethylene glycol Me vinyl ether (mol. weight 500) and 6 mmol polypropylene glycol bismaleamate (mol. weight 2000) in the presence of NaOH gave a 34.7% solution of copolymer with pH 7.60. Concrete containing 0.24% this additive (based on cement) had spreading 560 and 500 mm after 10 and 30 min, resp., bulk d. 2.48 kg/m3, air volume 2.0%, and strength after 24 h 9.6 N/mm2; vs. 545, 455, 2.50, 1.1, and 14.5, resp., with a com. cement additive.

IC ICM C08F222-06

ST

ΤТ

ΙT

ICS C08F222-40; C08F222-20; C08F216-14; C04B024-26

CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 58

hydraulic binder additive copolymer; cement additive carboxylated copolymer; polyoxyethylene vinyl ether copolymer; maleic anhydride copolymer binder; carboxylic acid unsatd copolymer; polyoxyalkylene alkenyl ether copolymer

IT Cement

Concrete

(copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids as additives for hydraulic binders)

9/18/07

108-31-6DP, Maleic anhydride, polymers with polyoxyalkylene alkenyl ethers and maleamic acid group-terminated siloxanes 27252-80-8DP, Polyethylene glycol allyl methyl ether, polymers with maleic anhydride and siloxane diamines 50856-25-2DP, Polyethylene glycol methyl vinyl ether, polymers with maleic anhydride and maleamic acid group-terminated siloxanes 183553-19-7P, Dibutyl maleate-maleic anhydride-polyethylene glycol methyl vinyl ether copolymer sodium salt 183553-20-0P, Diallyl phthalate-maleic anhydride-polyethylene glycol methyl vinyl ether copolymer 183628-75-3P, Maleic anhydride-polyethylene glycol methyl vinyl ether-polypropylane glycol bis(maleamate) copolymer sodium salt 183628-77-5P 183628-80-0P 183628-81-1P 183681-03-0P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses) (copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd.

dicarboxylic acids as additives for hydraulic binders)
108-31-6DP, Maleic anhydride, polymers with polyoxyalkylene
alkenyl ethers and maleamic acid group-terminated siloxanes
50856-25-2DP, Polyethylene glycol methyl vinyl ether, polymers
with maleic anhydride and maleamic acid group-terminated siloxanes
183553-19-7P, Dibutyl maleate-maleic anhydride-polyethylene glycol
methyl vinyl ether copolymer sodium salt 183628-75-3P, Maleic
anhydride-polyethylene glycol methyl vinyl ether-polypropylane glycol
bis(maleamate) copolymer sodium salt 183628-77-5P
183681-03-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (copolymers of oxyalkyleneglycol alkenyl ethers and derivs. of unsatd. dicarboxylic acids as additives for hydraulic binders)

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 50856-25-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -ethenyl- ω -methoxy- (CA INDEX NAME)

$$\texttt{MeO} = \texttt{CH}_2 - \texttt{CH}_2 - \texttt{O} - \texttt{D}_n - \texttt{CH} = \texttt{CH}_2$$

RN 183553-19-7 HCAPLUS

CN 2-Butenedioic acid (2Z)-, dibutyl ester, polymer with α -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl) and 2,5-furandione, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 183553-18-6

CMF (C12 H20 O4 . C4 H2 O3 . (C2 H4 O)n C3 H6 O)x

CCI PMS

CM 2

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO = \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix} n CH = CH_2$$

CM 3

CRN 108-31-6 CMF C4 H2 O3



CM 4

CRN 105-76-0 CMF C12 H20 O4

Double bond geometry as shown.

RN 183628-75-3 HCAPLUS

CN 2,5-Furandione, polymer with $(Z,Z)-\alpha-(4-amino-1,4-dioxo-2-butenyl)-\omega-[(4-amino-1,4-dioxo-2-butenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)] and <math>\alpha$ -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl), sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 183628-74-2

CMF (C4 H2 O3 . (C3 H6 O)n C8 H8 N2 O5 . (C2 H4 O)n C3 H6 O)x

KATHLEEN FULLER EIC1700

571/272-2505

CCI PMS

CM 2

CRN 183628-73-1

CMF (C3 H6 O)n C8 H8 N2 O5

CCI IDS, PMS

CM 3

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO = CH_2 - CH_2 - O = CH_2 - CH_2$$

CM 4

CRN 108-31-6 CMF C4 H2 O3

RN 183628-77-5 HCAPLUS

CN 2,5-Furandione, polymer with (Z,Z)- α -(4-amino-1,4-dioxo-2-butenyl)- ω -[(4-amino-1,4-dioxo-2-butenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)], ethenylbenzene and α -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl), sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 183628-76-4

CMF (C8 H8 . C4 H2 O3 . (C3 H6 O)n C8 H8 N2 O5 . (C2 H4 O)n C3 H6 O)x

CCI PMS

CM 2

CRN 183628-73-1

CMF (C3 H6 O)n C8 H8 N2 O5

CCI IDS, PMS

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO \longrightarrow CH_2 - CH_2 - O \longrightarrow D$$

CM 4

CRN 108-31-6 CMF C4 H2 O3

CM 5

CRN 100-42-5 CMF C8 H8

 $H 2 C \longrightarrow C H \longrightarrow P h$

RN 183681-03-0 HCAPLUS

CN 2-Butenoic acid, $4-\infty$ 0-4-[(4-sulfophenyl)amino]-, disodium salt, (Z)-, polymer with (Z,Z)- α -(4-amino-1,4-diox0-2-butenyl)- ω -[(4-amino-1,4-diox0-2-butenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)], α -ethenyl- ω -methoxypoly(oxy-1,2-ethanediyl) and

2,5-furandione, sodium salt (9CI) (CA INDEX NAME)

·CM 1

CRN 183681-02-9

CMF (C10 H9 N O6 S . C4 H2 O3 . (C3 H6 O)n C8 H8 N2 O5 . (C2 H4 O)n C3 H6 O . 2 Na)x

CCI PMS

CM 2

CRN 183628-73-1

CMF (C3 H6 O)n C8 H8 N2 O5 CCI IDS, PMS

CM 3

CRN 134206-79-4

CMF C10 H9 N O6 S . 2 Na

Double bond geometry as shown.

2 Na

CM 4

CRN 50856-25-2

CMF (C2 H4 O)n C3 H6 O

CCI PMS

$$MeO = CH_2 - CH_2 - O = CH_2$$

CM 5

CRN 108-31-6 CMF C4 H2 O3

L69 ANSWER 33 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:963515 HCAPLUS Full-text

DN 123:342149

TI Redispersible polymer powder and its preparation and use

IN Wutz, Konrad; Kern, Alfred; Weichmann, Josef

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PA SKW Trostberg AG, Germany
```

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	DE 4406822	A1	19950907	DE 1994-4406822	19940302		
	DE 4406822	C2	20021212	•			
PRAI	DE 1994-4406822		19940302				

AB A reaction product of a polyoxyalkylene, an unsatd. mono- or dicarboxylic acid or anhydride, and a primary or secondary amine and/or alc. is prepared and used as an additive in spray-dried polymer powders which show good redispersibility and are useful as additives in hydraulic binders, especially cement. A reaction product of an ethylene oxide-propylene oxide copolymer mono(3-sulfopropyl) ether Na salt, maleic anhydride, and polyethylene glycol mono-Me ether was added to a dispersion of an ethylene-vinyl acetate copolymer, and the dispersion was spray dried to give a powder which was used in mortar (cement-sand-water) for improving the flow and delaying hardening.

IC ICM C08L051-08

ICS C08F283-06; C08F008-32; C08F008-14; C08F008-44; C08J003-12; C08J003-05; B29B013-06; C04B024-26

ICA C08F008-46; C08K003-36

ICI C08F283-06, C08F220-04, C08F222-02, C08F222-04; C08L051-08, C08L029-04

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 58

EVA additive polymer powder redispersibility; cement additive
EVA powder redispersibility; mortar additive EVA powder redispersibility;
polyoxyalkylene carboxy deriv redispersibility EVA powder; spray drying
EVA redispersibility additive; maleic polyoxyalkylene additive polymer
redispersibility; dispersant polyoxyalkylene deriv EVA powder

IT Cement

(powdered EVA containing additives for improved dispersibility in aqueous compns.

containing)

IT 108-30-5DP, Succinic anhydride, reaction products with polyoxyalkylenes and amino and hydroxy compds. 108-31-6DP, Maleic anhydride, reaction products with polyoxyalkylenes and amino and hydroxy compds. 515-74-2DP, Sulfanilic acid sodium salt, reaction products with maleic anhydride and polyoxyalkylenes 9004-74-4DP, Polyethylene glycol monomethyl ether, reaction products with maleic anhydride and polyoxyalkylenes 25322-68-3DP, Polyethylene glycol, reaction products with maleic anhydride and amino and hydroxy compds. 25322-69-4DP, Polypropylene glycol, reaction products with maleic anhydride and amino and hydroxy compds. 160274-44-2DP, Ethylene oxide-propylene oxide copolymer mono(3-sulfopropyl) ether sodium salt, reaction products with maleic anhydride and amino and hydroxy compds.

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(in spray-dried EVA powder for improved redispersibility in hydraulic binder compns.)

1T 108-31-6DP, Maleic anhydride, reaction products with
 polyoxyalkylenes and amino and hydroxy compds. 9004-74-4DP,
 Polyethylene glycol monomethyl ether, reaction products with maleic
 anhydride and polyoxyalkylenes
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use)
 ; POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES
 (Uses)

(in spray-dried EVA powder for improved redispersibility in hydraulic binder compns.)

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

RN 9004-74-4 HCAPLUS

CN Poly(oxy-1, 2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)

$$HO \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow O \longrightarrow n$$
 CH_3

L69 ANSWER 34 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

10/551268

AN 1995:305067 HCAPLUS Full-text

DN 122:57427

TI Copolymers based on maleic acid derivatives and vinyl monomers, their preparation and their use.

IN Albrecht, Gerhard; Leitner, Hubert; Lindenberger, Rudolf; Siedl, Richard;
Werenka, Christian; Suter, Willi

PA Chemie Linz GmbH, Austria; Holderchem Holding AG

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PAN.	PATEN	T NO.			KINI	D DATE	AP	PLICATION NO.	DATE
ΡI		610699			A1	1994081		1994-100854	 19940121
	EP 61 R	0699 : AT,	BE,	CH,	B1 DE,	19961218 DK, ES, FR,		T, LI, NL, SE	
	AT 14	6489			T	19970115	AT AT	1994-100854	19940121
	ES 20	98066			Т3	19970416	ES ES	1994-100854	19940121
	NO 94	00327			A	19940802	NO	1994-327	19940131
	AU 94	54806			Α	19940804	AU	1994-54806	19940131
	AU 67	2461			B2	19961003	}		
	BR 94	00401			A	19940823	BR BR	1994-401	19940131
	ZA 94	00643			A	19940919) ZA	1994-643	19940131
	JP 06	322041			Α	19941122	2 JP	1994-9800	19940131
	HU 67	873			A2	19950529	HU	1994-270	19940131
	CA 21	14688			A1	19940802	CA	1994-2114688	19940201
	FI 94	00468			А	19940802	e FI	1994-468	19940201
	US 53	69198			A	19941129) US	1994-189642	19940201
PRAI	AT 19	93-162			Α	1993020			

The polymers contain 1-85 mol% units based on maleic acid monoester with polyoxyalkylene alkyl ether, 1-85 mol% units based on maleimide and(or) maleamic acid, 1-90 mol% units based on vinyl monomer, and optionally 0-50 mol% units based on maleic anhydride (I) and(or) acid and are obtained starting with maleic anhydride and the polyoxyalkylene ether followed by the N-containing component(s) and vinyl monomer. The polymers are useful as flow improvers for cement compns. and show less slump loss than prior-art

10/551268

materials. Thus, I was treated with polyethylene glycol Me ether and Na sulfanilate and more I followed by styrene to give a copolymer which was added (0.17% solids) to concrete, providing degree of slump 202 mm initially and 152 mm after 90 min. Use of a conventional naphthalenesulfonate-HCHO additive resulted in an initial value of 190 mm (150 mm after 45 min).

IC ICM C08F222-20

ICS C08F222-40; C04B024-26

37-3 (Plastics Manufacture and Processing) Section cross-reference(s): 38, 58

STmaleic polymer concrete additive

TΤ Concrete

(preparation of maleic acid-based copolymer additives for concrete

IT 100-42-5DP, Styrene, polymers with maleic acid derivs. 2-Ethylhexylamine, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 108-31-6DP, Maleic anhydride, derivs., polymers with styrene and maleic acid derivs. 108-91-8DP, Cyclohexylamine, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 111-95-5DP, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 515-74-2DP, Sodium sulfanilate, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 941-69-5DP, N-Phenylmaleimide, polymers with styrene and maleic acid derivs. 1206-49-1DP, N-(2,6-Dimethylphenyl)maleimide, polymers with styrene and maleic acid derivs. 9004-74-4DP, Polyethylene glycol methyl ether, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 28907-84-8DP, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. 68635-87-0DP, reaction products with maleic anhydride, polymers with styrene and maleic 90160-69-3DP, N-(4-Sulfophenyl)maleamic acid, polymers with acid derivs. styrene and maleic acid derivs. 106494-51-3DP, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs. RL: IMF (Industrial manufacture); MOA (Modifier or additive use) ; PREP (Preparation); USES (Uses)

(preparation of additives for concrete)

IT 108-31-6DP, Maleic anhydride, derivs., polymers with styrene and maleic acid derivs. 9004-74-4DP, Polyethylene glycol methyl ether, reaction products with maleic anhydride, polymers with styrene and maleic acid derivs.

RL: IMF (Industrial manufacture); MOA (Modifier or additive use) ; PREP (Preparation); USES (Uses)

(preparation of additives for concrete)

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (CA INDEX NAME)

ŔN 9004-74-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -methyl- ω -hydroxy- (CA INDEX NAME)

$$HO = CH_2 = CH_2 = O = I_n = CH_3$$

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PEZZUTO
                      10/551268
                                              9/18/07
L69
    ANSWER 35 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
AN
     1995:205630 HCAPLUS Full-text
DN
TI
     Curing of concrete and curing sheets therefor
    Mizukami, Yoshikatsu; Tanaka, Yutaka; Yonezawa, Toshio; Kojima, Masao
IN
     Kanebo Ltd, Japan; Takenaka Komuten Co
PA
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
DT
    Patent
LA
     Japanese
FAN.CNT 1
                   KIND
                                       APPLICATION NO.
     PATENT NO.
                                DATE
                                                                   DATE
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                               -----
                                           -----
                                                                   -----
PI JP 06212799 A 19940802
PRAI JP 1992-324814 A1 19921109
                                19940802 JP 1993-279611
                                                                   19931109
     The title process comprises dismantling the concrete mold frame after pouring
     a concrete mix, attaching water-absorbing curing sheets to the surface of the
     molded concrete at wet state, feeding water to the curing sheets to swell and
     adhere tightly to the concrete surface, and curing the concrete under the wet
     state. The curing sheets made from single or laminated nonwoven fabrics
     containing 15-40 weight% fuse-bonding fibers and 10-50 weight% high-water
     absorptivity polymer molded member, and the concentration of the latter in the
     nonwoven fabrics is decreased along the thickness direction from one surface
   to the other surface at a decreasing rate of ≥2.5 weight%/mm. The high-water
     absorptivity polymer molded member is formed from copolymers of \alpha,\beta-ethylenic
     unsatd. monomer having CO2H group, \alpha, \beta-ethylenic unsatd. monomer having OH
     group, and \alpha,\beta-ethylenic unsatd. monomer having carboxylic acid alkali metal
     base and can absorb 800-2000 weight% saline, and it is preferably fibers. The
     curing process prevents drying of the concrete during curing and enhances the
     strength and durability.
```

TC ICM E04G021-02

ICS B28B011-00; C04B040-04; C08F220-06

CC 58-2 (Cement, Concrete, and Related Building Materials)

STconcrete curing nonwoven fabric sheet

IT Concrete

> (curing of concrete by attaching nonwoven fabric curing sheets for enhanced strength and durability)

Polyester fibers, uses ΙT

RL: TEM (Technical or engineered material use); USES (Uses) (nonwoven fabrics containing; curing of concrete by attaching nonwoven fabric curing sheets for enhanced strength and durability)

ΙT 105523-91-9 157561-35-8

> RL: TEM (Technical or engineered material use); USES (Uses) . (fiber, nonwoven fabrics containing; curing of concrete by attaching nonwoven fabric curing sheets for enhanced strength and durability)

ΙT 159520-34-0, Aronzap RS 2

RL: TEM (Technical or engineered material use); USES (Uses) (nonwoven fabrics containing; curing of concrete by attaching nonwoven fabric curing sheets for enhanced strength and durability)

IΤ

RL: TEM (Technical or engineered material use); USES (Uses) (fiber, nonwoven fabrics containing; curing of concrete by attaching nonwoven fabric curing sheets for enhanced strength and durability)

RN 157561-35-8 HCAPLUS CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenyl acetate, 2-propenoic acid and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 4

CRN 79-10-7 CMF C3 H4 O2

L69 ANSWER 36 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:278546 HCAPLUS Full-text

DN 120:278546

TI Polymer coated cement based building materials

IN Watanabe, Masaki; Shimomura, Toshio; Yamamoto, Akihito

PA Dainippon Ink & Chemicals, Japan

```
Jpn. Kokai Tokkyo Koho, 14 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
                        KIND
                                DATE
                                          APPLICATION NO.
                                                                   DATE
                         ____
                                            ______
PΙ
     JP 06016487
                                19940125
                                            JP 1992-170713
                                                                   19920629
PRAI JP 1992-170713
                                19920629
     The materials are hardened product from cement containing mixts. with a
     coating of an aqueous dispersion of a polymer applied to the mixture
     immediately after molding before hardening. The polymer may be a copolymer of
     a vinyl ester of a tertiary C8-14 carboxylic acid, an \alpha,\beta-alkenoic acid, and
     optionally another monomer copolymerizable with the above monomers.
     materials have good weather resistance and hydrophobicity.
IC
     ICM C04B041-63
     ICS B28B011-04; C04B028-02
    C09D005-00; C09D131-02
ICA
    C04B028-02, C04B024-26, C04B024-04, C04B024-00
CC
     58-4 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
     cement based building material polymer coating
IT
     Building materials
        (cement based, polymer coatings for)
IT
     Coating materials
        (polymers, compns. and manufacture of, for cement based building
        materials)
ΙT
     154707-75-2 154707-76-3 154707-77-4
     RL: USES (Uses)
        (coatings, cement based building materials with)
ΙT
     154707-75-2 154707-77-4
     RL: USES (Uses)
        (coatings, cement based building materials with)
     154707-75-2 HCAPLUS
RN
CN
     tert-Decanoic acid, ethenyl ester, polymer with butyl 2-propenoate,
     ethenyl neononanoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)
     CM
          1
     CRN 54423-67-5
     CMF C11 H20 O2
     CCI IDS
 (neo-C8H17) — C— O— CH—— CH2
     CM
          2
```

CRN 26544-09-2

C12 H22 O2

CMF

CCI IDS

(tert-C9H19) _C_ O_CH__CH2

CM

CRN 141-32-2 CMF C7 H12 O2

CM

CRN 79-41-4 CMF C4 H6 O2

CH2 Me_C_CO2H

RN 154707-77-4 HCAPLUS

tert-Decanoic acid, ethenyl ester, polymer with butyl 2-propenoate, ethenyl neononanoate, methyl 2-methyl-2-propenoate and CN 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM

CRN 54423-67-5 CMF C11 H20 O2 CCI IDS

CM 2

CRN 26544-09-2 CMF C12 H22 O2

CCI IDS

CRN 141-32-2 CMF C7 H12 O2

0 n-BuO-C-CH=CH2

CM 4

CRN 80-62-6 CMF C5 H8 O2

H2C O Me_C_C_OMe

CM 5

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me_C_CO2H

L69 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:662064 HCAPLUS Full-text

DN 115:262064

TI Cement slurry composition for semiflexural pavement

IN Tanaka, Yasuji; Harada, Akio; Tsukiyama, Fumitoshi

PA Showa Highpolymer Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 1

LAN. CNI I												
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE								
JP 03146450	Α	19910621	JP 1989-279908	19891030								
JP 07065284	В	19950719										
JP 1989-279908		19891030										
	PATENT NO.	PATENT NO. KIND	PATENT NO. KIND DATE	PATENT NO. KIND DATE APPLICATION NO. JP 03146450 A 19910621 JP 1989-279908 JP 07065284 B 19950719								

The title **cement** slurry composition comprises **cement**, water, and aqueous emulsion of copolymer comprising ethylene 1-50, vinyl acetate (b) and vinyl ester system monomer (c) (c/b = 0-2) 30-95, styrene monomer (e), acrylic ester monomer (f), and monomer (g) copolymerizable with styrene monomer and acrylic ester monomer (g/(e + f) = 0-10) 5-70 weight%, and optionally filler. Thus, a **cement** slurry comprising polymer **cement** 6000, ethylene-Bu acrylate-styrene-

10/551268 vinyl acetate copolymer emulsion 500, and water 3500 parts had fluidity 12.3 s and its hardened body had bending strength 130.5 kg/cm2 and standard water permeation 25.3 g vs. 80.4-120.6 kg/cm2 and 34.5-99.5 g for control cement

slurries. IC ICM C04B024-26

ICS C04B041-63; C08L031-02; C08L031-04; C08L033-06

ICA C08F002-22

58-4 (Cement, Concrete, and Related Building Materials)

ST pavement semiflexural cement slurry; polymer emulsion cement slurry pavement

ΙT Pavements and Roads

(semiflexural, polymer emulsion-containing cement slurries for)

IT

(slurries, containing polymer emulsion, for semiflexural pavements)

ΙT Fatty acids, esters

RL: USES (Uses)

(branched, vinyl esters, polymers, with Bu acrylate and ethylene and styrene and vinyl acetate, emulsions, cement slurries containing, for semiflexural pavements)

ΙT 74-85-1D, Ethene, polymers with Bu acrylate and styrene and vinyl acetate and vinyl versatate 100-42-5D, polymers with Bu acrylate and ethylene and vinyl acetate and vinyl versatate 108-05-4D, Acetic acid ethenyl ester, polymers with Bu acrylate and ethylene and styrene and vinyl 141-32-2D, polymers with ethylene and styrene and vinyl acetate and vinyl versatate 81666-28-6 117533-20-7

RL: USES (Uses)

(emulsion, cement slurries containing, for semiflexural pavements)

117533-20-7 TT

RL: USES (Uses)

(emulsion, cement slurries containing, for semiflexural pavements)

RN 117533-20-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethene, ethenyl acetate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

CM2

CRN 108-05-4 CMF C4 H6 O2

Aco-CH-CH2

CRN 100-42-5 CMF C8 H8

H 2 C - CH - Ph

CM 4

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

CM 5

CRN 74-85-1 CMF C2 H4

 $H_2C \longrightarrow CH_2$

L69 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:662056 HCAPLUS Full-text

DN 115:262056

TI Cellular or foamed hydraulic compositions

IN Chao, Yen Yau Harrison; Larson, Gary Robert; Linder, Linus William; Bauman, Michael Jo

PA Rohm and Haas Co., USA

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

T 1 714 .	CIVI	1														
	PA	TENT NO.			KIND		DATE	DATE		APPLICATION NO.						ATE
•								_								
ΡI	ΕP	430576			A1		1991	0605	E	Р	1990-	312	702	•	19	9901121
		R: AT,	BE,	CH,	DE,	DK	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE	
	CA	2029635			A1		1991	0523	С	Α	1990-	2029	9635		19	9901109
	JΡ	03199177			Α		1991	0830	J	Ρ	1990-	3176	511		19	9901121
	BR	9005892			Α		1991	0924	В	R	1990-	5892	2		19	9901121
	AU	9066832			Α		1991	0530	A	U.	1990-	6683	32		19	9901122
	US	5109030			A.		1992	0428	U	S	1991-	7460	78	•	19	9910812
PRAI	US	1989-441	028		Α		1989	1122								

AB The compns. contain 25-135 weight parts hydraulic binder and 0.01-30 weight parts (based on the binder) polymeric foam stabilizer, in addition to

10/551268 conventional components, e.g., sand, setting agents, foaming agents, and surfactants, for cementitious and gypsum mixes. The foam stabilizer consists of 0.1-0.8 weight% of ≥ 1 nonionic, ethylenically unsatd. monomers and 2-40 weight% of ≥ 1 ionic or ionizable, ethylenically unsatd. monomers, and ≥ 1 of the monomer(s) contains carboxylic acid. The compns. are especially suitable

for floors, walls, and roofs, and have improved foam stability, mech. strength, resistance to water, and sound and thermal insulating properties.

ICM C04B024-26 ICS C04B038-00

58-3 (Cement, Concrete, and Related Building CC Materials)

STpolymeric foam stabilizer slurry; mortar cement polymeric foam stabilizer; gypsum slurry polymeric foam stabilizer

IΤ

(slurries, polymeric foam stabilizers for)

IT Foams

> (stabilizers for, polymeric, manufacture of, for cement and gypsum slurries)

ΙT 25035-69-2 25035-89-6 **25085-41-0**, Acrylic acid-butyl acrylate-vinyl acetate copolymer 25230-94-8 25987-67-1 26300-51-6, Acrylic acid-butyl acrylate-methyl methacrylate copolymer 30231-50-6 136190-00-6

RL: TEM (Technical or engineered material use); USES (Uses) (foam stabilizer, for cement and gypsum slurries)

ΙT 9008-63-3, Daxad 19 25155-19-5D, Naphthalenesulfonic acid, salts 25155-30-0, Siponate DS 4

RL: USES (Uses)

(foamed cement slurries containing, polymeric foam stabilizers

ΙT 57706-08-8, Aerosol A 103 39464-64-7, Wayfos M 60

RL: USES (Uses)

(surfactant, in polymeric foam stabilizer preparation, for cement and gypsum slurries)

IT25085-41-0, Acrylic acid-butyl acrylate-vinyl acetate copolymer 136190-00-6

RL: TEM (Technical or engineered material use); USES (Uses) (foam stabilizer, for cement and gypsum slurries)

RN 25085-41-0 HCAPLUS

2-Propenoic acid, polymer with butyl 2-propenoate and ethenyl acetate (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

-CH == CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2 A c O - C H = C H 2

CM 3

CRN 79-10-7 CMF C3 H4 O2

0 HO_C_CH__CH2

RN 136190-00-6 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethenyl acetate and hydroxymethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15731-80-3 CMF C4 H6 O3

о Но-сн₂-о-с-сн<u>--</u>сн₂

CM 2

CRN 141-32-2 CMF C7 H12 O2

0 n-BuO_C_CH__CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 4

CRN 79-10-7 CMF C3 H4 O2

```
но_ С_ СН <u>—</u> СН2
```

```
L69 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
     1990:596699 HCAPLUS Full-text
ΑN
DN
     113:196699
TΙ
     Extruded cement products, and their manufacture
     Kaempfer, Wolfram; Guenther, Michael; Almeroth, Roland; Bergner, Klaus;
     Helff, Claus Dieter; Buechner, Ute; Eger, Kurt; Janorschke, Ulrich;
     Wichmann, Andreas
     Bauakademie der DDR, Institut fuer Baustoffe, Ger. Dem. Rep.
     Ger. (East), 4 pp.
     CODEN: GEXXA8
DT
     Patent
LA
     German
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                         ____
     DD 277267
PΙ
                          A1
                                19900328
                                            DD 1988-322127
                                                                    19881124
PRAI DD 1988-322127
                                19881124
AΒ
     The cement products consist of cement 52-88, micron-size reactive SiO2 3-23,
     vinyl alc.-based (co)polymers (I) 1-3, and water 8-20 weight parts. The
     products are manufactured by vigorously mixing the micro-SiO2 with the water
     to give homogeneous reactive SiO2, and consecutively or simultaneously adding
     the I and the cement. The micro-SiO2 may be premixed with the cement. Thus, a
     mixture of cement 670, reactive SiO2 fume 130, carboxyl-type latex containing
     3% methacrylic acid 30, and plasticizer 10 weight parts, having water/ cement
     ratio 0.20:1, gave crack-free products, vs. crumbly material without the SiO2.
     ICM C04B014-00
     ICS C04B028-00; B28B003-20
CC
     58-1 (Cement, Concrete, and Related Building
     Materials)
ST
     silica fume extruded cement product; polyvinyl alc
     cement product
IT
        (products, extruded, crack-free, containing vinyl alc.-based polymers and
        silica fume)
TΤ
     79-10-7D, Acrylic acid, esters, polymers with styrene
                                                             100-42-5D,
     polymers with acrylic acid esters 108-05-4D, Vinyl acetate, polymers
     9002-89-5D, Poly(vinyl alcohol), partially saponified
     RL: USES (Uses)
        (cement mixts. containing silica fume and, for crack-free
        extruded products)
ΙT
     7631-86-9
     RL: USES (Uses)
        (cement, products, extruded, crack-free, containing vinyl
        alc.-based polymers and silica fume)
ΙT
     60676-86-0, Vitreous silica
     RL: USES (Uses)
        (fume, cement mixts. containing vinyl alc.-based polymers and,
        for crack-free extruded products)
IT
     81690-71-3, Viskoment
     RL: MOA (Modifier or additive use); USES (Uses)
```

(plasticizer, cement mixts. containing vinyl alc.-based polymers)

and silica fume and, for crack-free extruded products)

CN

```
TT 79-10-7D, Acrylic acid, esters, polymers with styrene
9002-89-5D, Poly(vinyl alcohol), partially saponified
RL: USES (Uses)
          (cement mixts. containing silica fume and, for crack-free
          extruded products)
RN 79-10-7 HCAPLUS
```

10/551268

о но<u>-</u> с₋₋₋ сн---- сн2

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)
CM 1

2-Propenoic acid (CA INDEX NAME)

CRN 557-75-5 CMF C2 H4 O

 $H_2C \longrightarrow CH \longrightarrow OH$

```
ANSWER 40 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
L69
     1990:428409 HCAPLUS Full-text
AN
DN
     113:28409
TI
     Cement compositions with good workability
IN
     Yuki, Takeshi; Yamauchi, Junnosuke; Okamura, Takayuki
PΑ
     Kuraray Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 7 pp.
SO
     CODEN: JKXXAF
DΤ
     Patent
I.A
     Japanese
FAN.CNT 1
```

DATE . KIND APPLICATION NO. DATE ____ ---------_____ JP 02026855 ΡI Α 19900129 JP 1988-175625 19880713 PRAI JP 1988-175625 19880713

AB The compns. contain 35-200 parts (as solid resin) emulsions consisting of acrylic resins, prepared by emulsion polymerization of ethylene and vinyl unsatd. carboxylates in the presence of acrylic emulsions (glass-transition temperature ≤0°, prepared by emulsion polymerization of C1-18 alkyl (meth)acrylate monomers) per 100 parts cement. The cement shows high strength and excellent water resistance. An acrylic acid-2-ethylhexyl acrylate-Me methacrylate-vinyl acetate graft copolymer waas used in an example.

IC ICM C04B024-24

CC 58-1 (Cement, Concrete, and Related Building Materials)

ST cement acrylic polymer emulsion; vinyl acetate acrylate copolymer cement; methacrylate graft copolymer cement

IT Cement

(admixts., acrylic polymer additives in, for workability)

IT Acrylic polymers, uses and miscellaneous
RL: USES (Uses)

(in cement compns. for workability)

IT 72108-15-7 127836-70-8

RL: USES (Uses)

(cement compns. containing, for workability)

IT 72108-15-7 127836-70-8

RL: USES (Uses)

(cement compns. containing, for workability)

RN 72108-15-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenyl acetate, 2-ethylhexyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CM 2

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

RN 127836-70-8 HCAPLUS

CN tert-Decanoic acid, ethenyl ester, polymer with ethenyl acetate, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 26544-09-2 CMF C12 H22 O2 CCI IDS

O (tert-C9H19) — C — O — CH === CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 103-11-7 CMF C11 H20 O2

CH2-O-C-CH=CH2
Et-CH-Bu-n

CM 4

CRN 80-62-6 CMF C5 H8 O2

 $\begin{array}{c} ^{\text{H}_2\text{C}} \circ \\ ^{\text{Me}-\text{C}-\text{C}-\text{OMe}} \end{array}$

CM 5

CRN 79-10-7 CMF C3 H4 O2

```
о
но_ C_ CH <u>— CH</u>2
```

```
L69 ANSWER 41 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
    1990:120806 HCAPLUS Full-text
DN
    112:120806
TT
    Aqueous hardeners based on (meth)acrylic acid copolymers and
    aldehyde-phenol-polyamine adducts for epoxy resin sealants, caulking
    compositions, and coatings
IN
    Klugar, Jindrich; Lidarik, Miloslav; Snuparek, Jaromir; Hajkova,
    Bohuslava; Sip, Martin
PΑ
    Czech.
SO
    Czech., 3 pp.
    CODEN: CZXXA9
DT
    Patent
LA
    Czech
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                                 DATE
                        ____
                               -----
                                          ______
    CS 260720
                        В1
                               19890112
                                        CS 1987-2487
                                                                 19870407
```

19870407

AB Hardeners for the title use contain 100 parts 20-40% aqueous (20-60):(10-30):(20-55) C2-8 alkyl (meth)acrylate-(meth)acrylic acid-vinyl compound copolymer dispersions, 5-40 parts reaction product prepared from a 1:(0.8-1.2) (mole ratio) C1-7 aldehyde-C2-19 N2-9 (aliphatic) cycloaliph. polyamine condensates and (alkyl) phenols [amine-phenol mole ratio 1:(0.6-1.5)], and optionally, 10 parts polyamines and 30 parts water. Thus, 2 parts hardener containing 25% aqueous 25:25:50 acrylic acid-Et acrylate-styrene copolymer dispersion 100, 1:1: (mole ratio) cresol-diethylenetriamine-HCHO condensate 35, and water 20 parts was homogenized with 1 part dian epoxy resin (mol. weight 370) and 2 parts Portland cement 320 to give a thixotropic composition that exhibited good adhesion to glass and wet substrates after hardening for quick repair of water seepage.

IC ICM C08G059-50

PRAI CS 1987-2487

ICS C08L063-10

CC 42-11 (Coatings, Inks, and Related Products) Section cross-reference(s): 37, 58

IT 113921-92-9

RL: USES (Uses)

(crosslinkers, containing aldehyde-phenol-polyamine condensates and cyclohexylaminopropylamine, for epoxy resin coatings and sealants)

IT 113921-92-9

RL: USES (Uses)

(crosslinkers, containing aldehyde-phenol-polyamine condensates and cyclohexylaminopropylamine, for epoxy resin coatings and sealants)

RN 113921-92-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenyl acetate, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

CMF C5 · H8 O2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 4

CRN 80-62-6 CMF C5 H8 O2

H2C O Me_C_C_OMe

CM 5

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

L69 ANSWER 42 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:520006 HCAPLUS Full-text

DN 111:120006

TI Waterproofing coating materials

IN Macho, Vendelin; Stepita, Matej; Pavlacka, Eduard; Beseda, Viliam; Gregor, Alexander

PA Czech.

```
SO Czech., 4 pp. CODEN: CZXXA9
```

DT Patent

LA Slovak

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
							
ΡI	CS 256051	B1	19880415	CS 1982-5300	19851220		
PRAI	CS 1982-5300		19851220				

The waterproofing materials consist of a hydraulic binder (cement , gypsum) AΒ 30-60, fillers (quartz and andesite sand, basalt fibers, microasbestos, limestone, dolomite) 35-65, cellulose derivs. or casein 2-4, Ca stearate (I), silica, and/or urea 0.5-3 weight parts, and 10-60 weight parts hydrophobic component/100 weight parts of solids. The hydrophobic component consists of an aqueous dispersion of a copolymer of vinyl chloride (II) with vinyl acetate (III), alkyl acrylates, acrylic acid, maleic acid, alkyl maleate, 1,3butadiene, styrene, and/or α -methylstyrene, contains \leq 5% partially saponified poly(vinyl acetate) or poly(vinyl alc.) and <10-2% monomeric II. After mixing of solids with the aqueous dispersion, the material is used for coating of concrete surfaces pretreated with a penetration varnish and gives a smooth crack-free layer impermeable to water. A typical insulation was prepared from white cement 51.0, microground limestone (grain size 0.01-0.5 mm) 44.3, acid casein 2.5, microasbestos 1.5, I 0.5, hexamethylenetetramine 0.20, 50% aqueous dispersion of 72:17:11 II-III-di-Bu maleate copolymer 5, and H2O 25 weight parts.

IC ICM C09K003-18

CC 58-3 (Cement, Concrete, and Related Building ...
Materials)

10/551268

ST waterproofing vinyl chloride copolymer cement binder; limestone waterproofing binder concrete; asbestos waterproofing binder concrete; calcium stearate waterproofing binder concrete; silica waterproofing cement binder; urea waterproofing cement binder

IT Concrete

(coatings on, waterproofing materials for, preparation of)

IT Andesite

Asbestos

Limestone, uses and miscellaneous

RL: USES (Uses)

(filler, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT Caseins, uses and miscellaneous

RL: USES (Uses)

(waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT Waterproofing

(agents, preparation of, from **cement** and limestone and vinyl chloride-containing copolymer, for **concrete**)

IT Synthetic fibers

RL: USES (Uses)

(basalt, filler, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT Basalt

RL: USES (Uses)

(fiber, filler, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT Coating materials

(water-resistant, preparation of, from **cement** and limestone and vinyl chloride-containing copolymer, for **concrete**)

IT Cement

9/18/07

(white, binder, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT 13397-24-5, Gypsum, uses and miscellaneous

RL: USES (Uses)

(binder, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT 16389-88-1, Dolomite, uses and miscellaneous

RL: USES (Uses)

(filler, waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT 9005-09-8 26590-01-2 30523-12-7 33750-59-3, Dibutyl maleate-vinyl acetate-vinyl chloride copolymer **41934-30-9**

RL: USES (Uses)

(waterproofing coating materials containing, for concrete)

IT 57-13-6, Urea, uses and miscellaneous 100-97-0, uses and miscellaneous 1592-23-0, Calcium stearate 7631-86-9, Silica, uses and miscellaneous 9003-20-7D, partially saponified

RL: USES (Uses)

(waterproofing coating materials containing, vinyl chloride copolymer in, for concrete)

IT 41934-30-9

RL: USES (Uses)

(waterproofing coating materials containing, for concrete)

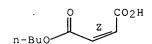
RN 41934-30-9 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monobutyl ester, polymer with chloroethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 925-21-3 CMF C8 H12 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4 CMF C4 H6 O2

A c O - C H - C H 2

CM 3

CRN 75-01-4 CMF C2 H3 Cl $H_2C = CH - C1$

```
ANSWER 43 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
L69
     1989:198241 HCAPLUS Full-text
ΑN
DN
     110:198241
TΤ
     Plastering mix
ΙN
     Deja, Jan; Derdacka-Grzymek, Anna; Lorecki, Jerzy; Malolepszy, Jan;
     Stabrawa, Stefan; Stok, Andrzej
PA
     Akademia Gorniczo-Hutnicza, Pol.
SO
     Pol., 9 pp.
     CODEN: POXXA7
DΤ
    Patent
LA
     Polish
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                        ____
                                -----
                                            -----
PΙ
     PL 144935
                         В1
                                19880730
                                            PL 1985-255475
                                                                   19850920
PRAI PL 1985-255475
                                19850920
     The plastering mix consists of colored slag binder 20-25, polymer binder 2-
     2.5, filler 60-70\% and H2O 100-120 weight %. The colored binder has sp.
     surface of 3200 cm2/g and comprises granulated blast-furnace slag 90-96,
     portland clinker 4-6, and color additive ≤4 weight %. The product can be
     easyly manufactured in a wide range of uniform colors, and has a low thermal
     conductivity
IC
     ICM C04B028-00
CC
     58-3 (Cement, Concrete, and Related Building
     Materials)
IT
     Cement
        (portland, plastering mix, containing, colored)
IT
     9003-20-7, Polyvinyl acetate 31546-73-3, Poly(vinyl maleate)
     RL: USES (Uses)
        (aqueous suspension of, in plastering mix)
     31546-73-3, Poly(vinyl maleate)
IT
     RL: USES (Uses)
        (aqueous suspension of, in plastering mix)
RN
     31546-73-3 HCAPLUS
CN
     2-Butenedioic acid (2Z)-, monoethenyl ester, homopolymer (9CI) (CA INDEX
     NAME)
     CM
          1
     CRN 19896-47-0
     CMF C6 H6 O4
```

Double bond geometry as shown.

L69 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN AN 1989:140523 HCAPLUS Full-text

DN 110:140523

```
Agents for decreasing dust and rebounds in spray application of
```

- IN Mihara, Toshio; Nakajima, Nobuyoshi; Hirano, Kenkichi; Kawauchi, Toshio
- PA Denki Kagaku Kogyo K. K., Japan

10/551268

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

concretes

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	JP 63270334	A	19881108	JP 1987-103097	19870428		
PRAI	JP 1987-103097		19870428				

AB The agents contain copolymer emulsion of ethylene, vinyl acetate, unsatd. carboxylic acids, and acrylates. Thus, acrylic acid-Bu acrylate-ethylene-vinyl acetate copolymer emulsion was added to a concrete mixture just before spray application. A concrete product having 28-day compressive strength 260 kg/mm2 was obtained with 9% rebound and 230 dust counts per min. A concrete mixture free of the agent gave a product having 28-day compressive strength 250 kg/mm2 with 35% rebound and 764 dust counts per min.

IC ICM C04B024-26

ICS C08L023-08; C08L031-04; C08L033-08

CC 58-2 (Cement, Concrete, and Related Building Materials)

ST dust decreasing agent concrete spraying; rebound prevention agent concrete spraying; ethylene copolymer spray concrete additive; acrylate copolymer spray concrete additive; vinyl acetate copolymer concrete additive

IT Concrete

(additives, for dust and rebound prevention, carboxylic acid-vinyl acetate copolymers as, for spraying)

IT Dust

(prevention agents for, acrylate-ethylene-unsatd. carboxylic acid-vinyl acetate copolymers as, in concretes for spray application)

IT 28679-42-7 28679-45-0, Acrylic acid-butyl

acrylate-ethylene-vinyl acetate copolymer 119779-53-2

119791-01-4

RL: USES (Uses)

(concrete additive, spray, for rebound and dusting prevention)

IT 28679-42-7 28679-45-0, Acrylic acid-butyl

acrylate-ethylene-vinyl acetate copolymer 119779-53-2

119791-01-4

RL: USES (Uses)

(concrete additive, spray, for rebound and dusting prevention)

RN 28679-42-7 HCAPLUS

CN 2-Propenoic acid, polymer with ethene, ethenyl acetate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

O || EtO_C_CH__CH2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 3

CRN 79-10-7 CMF C3 H4 O2

о но_ C_ CH == CH2

CM 4

CRN 74-85-1 CMF C2 H4

RN 28679-45-0 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethene and ethenyl acetate (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

0 || n-BuO-C-CH----CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CRN 79-10-7 CMF C3 H4 O2

HO_C_CH__CH2

CM ·

CRN 74-85-1 CMF C2 H4

 $H_2C \longrightarrow CH_2$

RN 119779-53-2 HCAPLUS

CN Butanedioic acid, methylene-, polymer with ethene, ethenyl acetate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

O || EtO_C_CH__CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CM 3

CRN 97-65-4 CMF C5 H6 O4

$$^{\text{CH}_2}_{\text{HO}_2\text{C}-\text{C}-\text{CH}_2-\text{CO}_2\text{H}}$$

CRN 74-85-1 CMF C2 H4

H2C==CH2

RN 119791-01-4 HCAPLUS

CN Butanedioic acid, methylene-, polymer with butyl 2-propenoate, ethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

CM 2

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CM 3

CRN 97-65-4 CMF C5 H6 O4

 CH_2 II $HO_2C - C - CH_2 - CO_2H$

CM 4

CRN 74-85-1 CMF C2 H4 $H_2C \longrightarrow CH_2$

```
L69 ANSWER 45 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:62650 HCAPLUS Full-text
DN 110:62650
TI (Meth)acrylate polymer dispersing agents for cement
IN Yamaguchi, Koichi; Goto, Tokio
PA Dainippon Ink Chemical Industry Co., Japan
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
```

DT Patent

LA English

FAN.CNT 1

	PAT	rent	NO.			KIND		DATE		API	PLICATION NO.	DATE		
PT	FD	 2737	11			A1	•	19880706			 1987-311381	 19871223		
	101		BE,	DE.	FR.		IT.			LP	1907-311301	190/1223		
	JP	6316	•		,	A	,	19880706		JP	1986-307983	19861225		
	US	4888	059			Α		19891219		US	1987-136344	19871222		
PRAI	JP	1986	-3079	983		Α		19861225						

A cement dispersing agent is obtained by copolymg. 40-90 weight% (meth)acrylic acid and/or their alkali metal salts with 10-60 weight% Me and/or Et (meth)acrylate. Alternatively, the cement dispersing agent comprises copolymer obtained by copolymg. 40-89 weight% (meth)acrylic acid and/or their alkali metal salts with 10-51 weight% Me and/or Et (meth)acrylate to which 1-9 weight% of other copolymerizable unsatd. monomer, chosen to balance the hydrophilic and hydrophobic natures of the resulting copolymers, is added, in an aqueous medium. When used in small amts. (about 0.01-1.00 weight%) at the time of mixing of cements, the cement dispersing agents impart excellent fluidity, prevent slump loss, and quickly develop strength in the cured products. They are also advantageous from the standpoint of no pollution and economics. The compressive strength and fluidity (shown by a "mortar flow value") of cements containing 0.6% 75:25 methacrylic acid-Me methacrylate copolymer were measured for various weight average mol. wts. of the copolymer. The highest fluidity and the highest 7- and 28-day compressive strengths were achieved when the weight average mol. weight of the cement dispersing agent was .apprx.20,000, and all the measured values decreased rapidly for copolymer weight average mol. wts. of <10,000 and >40,000.

IC ICM C04B024-26

ICS C08F220-18; C08F020-18

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST copolymer dispersing agent cement; acrylic acid copolymer dispersant; methacrylic acid copolymer dispersant; acrylate copolymer dispersant; methacrylate copolymer dispersant

IT Dispersing agents

((meth)acrylic polymers, for **cement** for fluidity and early strength)

IT Cement

(dispersing agents for, (meth)acrylic polymers, for fluidity and early strength)

IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 26950-79-8, Methacrylic acid-methyl methacrylate copolymer sodium salt 41487-53-0, Ethyl acrylate-methacrylic acid copolymer sodium salt 51822-19-6,

Acrylic acid-ethyl acrylate copolymer sodium salt 54452-24-3 72728-47-3, Methacrylic acid-methyl methacrylate-vinyl acetate copolymer sodium salt 79281-92-8 93891-16-8 118570-03-9 118570-05-1 118570-07-3

RL: TEM (Technical or engineered material use); USES (Uses) (dispersing agents, for cement, for fluidity and early strength)

1T 72728-47-3, Methacrylic acid-methyl methacrylate-vinyl acetate
copolymer sodium salt

RL: TEM (Technical or engineered material use); USES (Uses) (dispersing agents, for cement, for fluidity and early strength)

RN 72728-47-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenyl acetate and methyl 2-methyl-2-propenoate, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 28430-58-2 CMF (C5 H8 O2 . C4 H6 O2 . C4 H6 O2)x CCI PMS

CM 2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 3

CRN 80-62-6 CMF C5 H8 O2

H2C O Me—C—C—OMe

CM 4

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

L69 ANSWER 46 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN AN 1988:615121 HCAPLUS Full-text

```
DN 109:215121
```

- TI Cement composition with high bondability and low water absorption
- IN Tanaka, Yasuji; Nakakita, Masanobu; Harada, Akio
- PA Showa Highpolymer Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT N	O. KIND	DATE	APPLICATION NO.	DATE
PI JP 63144	155 A	19880616	. JP 1986-287684	19861204
JP 02048	503 B	19901025		
PRAI JP 1986-	287684	19861204		

- The title **cement** composition contains a synthetic resin aqueous emulsion containing 10-65 weight% solids comprising ethylene 1-50, vinyl acetate and vinyl ester (vinyl acetate/vinyl ester = 0-2) 30-95, and styrene monomer (s), acrylic ester monomer (a), and other monomer (m) copolymerizable with s and a $[m/(s+a)=0-1,\ s/a=0-10]$ 5-70 weight%, which is prepared by 2-stage polymerization. Thus, a powdered mixture of **cement** 100, sand 100, and Hi-Metolose 90SH4000 0.2 part was mixed with 20 parts aqueous emulsion of Bu acrylate-ethylene-styrene-vinyl acetate copolymer and 50 parts water to prepare a mortar of bonding strength 6.5 kg/cm2 and water absorption 0.42 g/49 cm2, resp.
- IC ICM C04B024-26 ICS C08L051-06
- CC 58-1 (Cement, Concrete, and Related Building

Materials)

- ST polymer emulsion cement mortar; ethylene vinyl ester copolymer cement
- IT Cement

(additives for, ethylene-vinyl ester-styrene-acrylate copolymers, for good bonding and low water absorption)

IT Fatty acids, esters

RL: USES (Uses)

(branched, vinyl esters, polymers, with Bu acrylate, ethylene, styrene, and vinyl acetate, emulsions, cement compns. containing, for good bonding and low water absorption)

IT 96538-32-8

RL: USES (Uses)

(cement compns. containing, polymer emulsion in, for good bonding and low water absorption)

74-85-1D, polymers with Bu acrylate, styrene, vinyl acetate, and vinyl versatate 100-42-5D, polymer with Bu acrylate, ethylene, vinyl acetate, and vinyl versatate 108-05-4D, polymer with Bu acrylate, ethylene, styrene, and vinyl versatate 141-32-2D, polymer with ethylene, styrene, vinyl acetate, and vinyl versatate 81666-28-6, Butyl acrylate-ethylene-styrene-vinyl acetate copolymer 117533-20-7 RL: USES (Uses)

(emulsion, cement compns. containing, for good bonding and low water absorption)

IT 117533-20-7

RL: USES (Uses)

(emulsion, cement compns. containing, for good bonding and low water absorption)

RN 117533-20-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethene, ethenyl acetate and ethenylbenzene (9CI) (CA INDEX NAME)

CRN 141-32-2 CMF C7 H12 O2

n-BuO_C_CH__CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

.CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 4

CRN 79-41-4 CMF C4 H6 O2

CH2 · Me—C—CO2H

CM 5

CRN 74-85-1 CMF C2 H4

H2C==CH2

L69 ANSWER 47 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN AN 1988:80871 HCAPLUS $\underline{\text{Full-text}}$

```
DN 108:80871
```

- TI Cement plasticizer compositions based on polymerizable carboxylic acids, and cementiferous compositions containing them
- IN Hoarty, John Terence; Bainbridge, Peter; Montague, Peter Graham
- PA UK
- SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

- DT Patent
- LA English

FAN.CNT 1

I WIN'	IAN.CNI I																
	PATENT NO.					KIND		DATE			APPLICATION NO.					DATE	
ΡI	ΕP	2440	95			A2		1987	1104		EP 1987-302851					19870401	
	EΡ	2440	95			A3		19890726									
	EΡ	2440	95			B1		1995	1018								
		R:	AT,	BE,	CH,	DE,	ES,	FR,	GB,	GR,	IT	r, LI,	NL,	SE			
	CA	1325	863			С		1994	0104		CA	1987-	5332	258		198703	330
	ΑÚ	8770	910			Α		1987	1008		ΑU	1987-	7091	.0		198703	331
	ΑU	6026	82			В2		1990	1025								
	AT	1292	24			\mathbf{T}		1995	1115		ΑT	1987-	3028	151		198704	101
	ES	2079	347			Т3		1996	0116		ES	1987-	3028	351		198704	101
	ZA	8702	400			Α		1988	1228		ZA	1987-	2400)		198704	102
	JΡ	6307	9744			Α		1988	0409		JP	1987-	8278	0		198704	103
	US	US 5047087				Α		1991	0910		US	1989-	3488	347		198905	504
PRAI	US	1986	-8479	983		Α		1986	0403								

- Cement plasticizers and cement compns. containing these are prepared, wherein the plasticizers are copolymers and their salts and comprise approx. 33-95 mol% of an ethylenically polymerizable carboxylic acid and 5-67 mol% of a C1-8alkyl ester of an ethylenically polymerizable carboxylic acid or, optionally, terpolymers of 45-90 mol% of said acid, 5-50 mol% of said ester, and 5-50 mol% of a 3rd monomer preferably selected from the group comprising vinyl acetate, allyl alc., vinyl alc., and styrene. Acrylic acid is the ethylenically polymerizable carboxylic acid in 6 of 7 polymers tested, methacrylic acid is used in the 7th, and all polymers are in the form of the Na salt. The plasticizer compns. also may contain 0.1-2.0 weight% antifoaming agent and 15-35 weight% accelerator, both based on the copolymer. A plasticizer was prepared from acrylic acid 56, Me methacrylate 22, and vinyl acetate 22 mol% in the form of the Na salt and added to concrete at 0.12 weight% (based on cement) along with 0.25 weight% Bu3PO4 antifoaming agent. The concrete had plastic d. 2400, flow 34 and 63 before and after tamping, setting time 7.7 and 9.0 h at 500 and 1000 psi, resp., time to return to 50 mm slump 3.60 h, and 1and 7-day compressive strength 11.0 and 36.0 N/mm2 vs. 2410, 36 and 64, 7.2 and 9.4 h, 3.75 h, and 9.5 and 35.5 N/mm2, resp. for concrete containing the more expensive acrylic acid-hydroxypropyl methacrylate copolymer Na salt as the plasticizer.
- IC ICM C04B024-26
- CC 58-1 (Cement, Concrete, and Related Building Materials)
- ST polymer sodium salt **cement** plasticizer; methacrylic acid copolymer plasticizer; acrylic acid copolymer plasticizer; methacrylate copolymer plasticizer; acrylate copolymer plasticizer; vinyl alc copolymer plasticizer; vinyl acetate copolymer plasticizer; allyl alc copolymer plasticizer; styrene copolymer plasticizer
- IT Alcohols, uses and miscellaneous .
 - Siloxanes and Silicones, uses and miscellaneous

RL: USES (Uses)

(antifoaming agent, in **cement** compns. containing (meth)acrylic copolymer sodium salt plasticizers)

IT Antifoaming agents

(in cement compns. containing (meth)acrylic copolymer sodium salt

```
plasticizers)
IT
    Cement
       Concrete
        (plasticizers for, (meth)acrylic copolymer sodium salts)
ΙT
     84-74-2 126-73-8, Tributyl phosphate, uses and miscellaneous
     RL: USES (Uses)
        (antifoaming agent, in cement compns. containing (meth)acrylic
        copolymer sodium salt plasticizers)
     26950-79-8, Methacrylic acidmethyl methacrylate copolymer sodium salt
IT
     51822-19-6, Acrylic acid-ethyl acrylate copolymer sodium salt
     57208-39-6, Acrylic acid-methyl methacrylate copolymer sodium salt
     112665-50-6 112665-51-7
                               112665-52-8
     RL: TEM (Technical or engineered material use); USES (Uses)
        (plasticizer, for concrete)
ΙT
     79-10-7D, derivs., polymers, sodium salts
     RL: TEM (Technical or engineered material use); USES (Uses)
        (plasticizers, for concrete)
                                        540-72-7, Sodium thiocyanate
IT
     102-71-6, uses and miscellaneous
     RL: USES (Uses)
        (setting accelerator, in cement compns. containing (meth)acrylic
        copolymer sodium salt plasticizers) .
IT
     112665-51-7
     RL: TEM (Technical or engineered material use); USES (Uses)
        (plasticizer, for concrete)
RN
     112665-51-7 HCAPLUS
CN
     2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenyl acetate
     and 2-propenoic acid, sodium salt (9CI) (CA INDEX NAME)
     CM
          1
     CRN
          25767-83-3
     CMF
          (C5 H8 O2 . C4 H6 O2 . C3 H4 O2)x
     CCI
         PMS
          CM
               2
          CRN 108-05-4
          CMF C4 H6 O2
```

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 80-62-6 CMF C5 H8 O2

H₂C

CM 4

CRN 79-10-7

CMF C3 H4 O2

```
0
HO_C_CH__CH2
```

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ANSWER 48 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ΑN
    1987:604070 HCAPLUS Full-text
DN
     107:204070
TI
     Protective compositions for cement products
ΙN
     Goto, Tokio
PA
     Dainippon Ink and Chemicals, Inc., Japan
SO
     Jpn. Kokai Tokkyo Koho, 7 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                         KIND
                                            APPLICATION NO.
     JP 62138374
                                19870622
                                            JP 1985-275973
                                                                    19851210
PRAI JP 1985-275973
                                19851210
     The protective compns. for cement products comprise (1) aqueous dispersion of
     synthetic resin prepared by emulsion polymerization of versatic acid vinyl
     ester 30-100 and other vinyl monomers 0-70 weight% and (2) Li silicate. Thus,
     a cement mortar was coated with an aqueous solution containing VeoVa 10-
     ethylhexyl acrylate-methacrylic acid-Me methacrylate copolymer and Lithium
     Silicate-45 (SiO2/Li2O mol ratio 3.5) at 200 g/m2, dried 1 wk at 23° and 65%
     relative humidity, and dipped 1 h in tap water. The water absorption was 1.0
     vs. 8.7% for untreated mortar.
TC
     ICM C04B040-04
CC
     58-3 (Cement, Concrete, and Related Building
     Materials)
IT
     Coating materials
        (versatic acid vinyl ester base polymer-lithium silicate, for
        cement product protection)
ΙT
     12627-14-4 111287-16-2, Ethylhexyl acrylate-methacrylic
     acid-methyl methacrylate-VeoVa 10 copolymer
     RL: USES (Uses)
        (protective composition containing, for cement products)
ΙT
     111287-16-2, Ethylhexyl acrylate-methacrylic acid-methyl
     methacrylate-VeoVa 10 copolymer
     RL: USES (Uses)
        (protective composition containing, for cement products)
RN
     111287-16-2 HCAPLUS
CN
     tert-Decanoic acid, ethenyl ester, polymer with 2-ethylhexyl 2-propenoate,
     methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA
     INDEX NAME)
     CM
          1
     CRN 26544-09-2
```

CMF C12 H22 O2

CCI IDS

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

CM 4

CRN 79-41-4 CMF C4 H6 O2

L69 ANSWER 49 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:560487 HCAPLUS Full-text

DN 107:160487

TI Water-soluble polymers and their use as a construction material in the building industry

IN Lange, Werner; Hoehl, Frank; Szablikowski, Klaus

PA Wolff Walsrode A.-G., Fed. Rep. Ger.

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

KATHLEEN FULLER EIC1700

571/272-2505

EP 227984 A1 19870708 EP 1986-117020 19861208 EP 227984 B1 19890531 R: DE, FR, IT

US 4703087 A 19871027 US 1986-942142 19861216

PRAI DE 1985-3545596 A 19851221

The water-soluble copolymers consist of (CH2CR1R2) 5-50, (CH2CH02CR3) 0-20, (CH2CR4CONH2) (I) 5-50, (CH2CHNR5COR6) or (CH2CHX) 5-50, and (CH2CR7CO2H) 2-50 mol. % (R1, R4, R7 = H, Me; R2 = C1-4 alkoxycarbonyl, C1-4 alkanoyloxy, C2-3 β -hydroxyalkoxycarbonyl); R3 = H, Et; R5, R6 = (independently) H, Me, Et, or (jointly) (CH2)3 or (CH2)5 ring; X = imidazole or carbazole), to a total of 100%, and are contacted with lower, aliphatic aldehydes and with NaHSO3, to convert 0.1-1 mol of I with aldehyde. They are useful in the construction of floors. A polymer was prepared consisting of Me acrylate 15, vinyl acetate 7, acrylamide 46, 1-vinylpyrrolidone-2 24, and acrylic acid 8 mol. %. The chain length was controlled by addition of hydroquinone and the polymerization was initiated and maintained by addns. of K2S2O8. The pH was adjusted to 9.2 with NaOH and H2SO4 and the polymer was converted with HCOH in the presence of NaHSO3. A mixture of sand, cement and fly ash was dry-mixed and then mixed with the polymer solution, defoamer and water. The spreading capability was measured as a function of the diameter of a given amount. The mixture required 128 mL H2O, the initial and 1-h spreading were 235 and 240 mL, the mixture was easy to liquefy after 1 h, and produced a smooth and walkable surface, whereas a com. melamine-formaldehyde required 118 mL water, the spreading was 230 and 160 mL, resp., and the surface was bulging and uneven but walkable.

IC ICM C08F008-36

ICS C08F008-28; C08F218-08; C08F220-06; C08F220-12; C08F220-56; C08F226-06; C04B024-24

CC 58-6 (Cement, Concrete, and Related Building Materials)

ST water soluble flowing agent cement; acrylic acid deriv flowing agent; floor construction flowing agent cement

IT Cement

Concrete

(acrylic acid-based flowing agents for, for floors)

IT Floors

(cement and concrete, acrylic acid-based flowing
agents for)

IT Ashes (residues)

(fly, cement containing acrylic acid-based flowing agents and, for floors)

IT 110586-31-7 110586-32-8 110586-33-9, Acrylic

acid-acrylamide-ethyl acrylate-formaldehyde-vinyl acetate-N-vinyl-N-methylacetamide copolymer 110586-34-0 110604-03-0 110608-48-5

RL: TEM (Technical or engineered material use); USES (Uses) (flowing agent, water-soluble, for cement and concrete floors)

IT 110586-31-7 110586-32-8 110586-33-9, Acrylic

acid-acrylamide-ethyl acrylate-formaldehyde-vinyl acetate-N-vinyl-N-methylacetamide copolymer 110586-34-0

RL: TEM (Technical or engineered material use); USES (Uses) (flowing agent, water-soluble, for cement and concrete floors)

RN 110586-31-7 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, formaldehyde, methyl 2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4

 $AcO-CH-CH_2$

CM 2

CRN 96-33-3 CMF C4 H6 O2

CMF C4 H6 O2

CM 3

CRN 88-12-0 CMF C6 H9 N O

CH=CH2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5 .

CRN 79-06-1 CMF C3 H5 N O

 $H_2N-C-CH-CH_2$

CM 6

CRN 50-00-0 CMF C H2 O

H2C==O

RN 110586-32-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, formaldehyde, 2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

$$\begin{array}{c|c} {}^{\rm H2C} & {}^{\rm O} \\ {}^{\rm II} & {}^{\rm II} \\ {}^{\rm Me-C-C-O-CH_2-CH_2-OH} \end{array}$$

CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

CRN 88-12-0 CMF C6 H9 N O

CM 4

CRN 79-10-7 CMF C3 H4 O2

```
о
но_ С_ сн___ сн<sub>2</sub>
```

CRN 79-06-1 CMF C3 H5 N O

CM 6

CRN 50-00-0 CMF C H2 O

H2C=0

RN 110586-33-9 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, N-ethenyl-N-methylacetamide, ethyl 2-propenoate, formaldehyde and 2-propenamide (9CI) (CA INDEX NAME)

CM :

CRN 3195-78-6 CMF C5 H9 N O

Ac-N-CH CH_2

CM 2

CRN 140-88-5 CMF C5 H8 O2

0 EtO_C_CH__CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 4

CRN 79-10-7 CMF C3 H4 O2

о но<u>-</u> с<u>-</u> сн<u>--</u> сн₂

CM 5

CRN 79-06-1 CMF C3 H5 N O

0 H₂N_C_CH__CH₂

CM 6

CRN 50-00-0 CMF C H2 O

H2C==O

RN 110586-34-0 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, ethyl 2-propenoate and formaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

O || EtO_C_CH__CH2

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CM 3

CRN 88-12-0 CMF C6 H9 N O

CM 4

CRN 79-10-7 CMF C3 H4 O2

о || | но_ С_ Сн <u>—</u> Сн 2

CM 5

CRN 50-00-0 CMF C H2 O

 $H_2C = 0$

L69 ANSWER 50 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:181653 HCAPLUS <u>Full-text</u>

DN 106:181653

TI Synthesis of water-soluble copolymers and building materials containing them

IN Lange, Werner; Hoehl, Frank; Szablikowski, Klaus

PA Wolff Walsrode A.-G., Fed. Rep. Ger.

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

```
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ____
                                _____
                                                                    ------
PΙ
     DE 3529095
                          A1
                                19870219
                                            DE 1985-3529095
                                                                    19850814
     EP 214454
                          A2
                                            EP 1986-110675
                                19870318
                                                                    19860801
     EP 214454
                          Α3
                                19870616
     EP 214454
                          В1
                                19890405
         R: AT, DE, FR, IT, NL
     AT 41940
                          Т
                                19890415
                                            AT 1986-110675
                                                                    19860801
     US 4727116
                          Α
                                19880223
                                            US 1986-893126
                                                                    19860804
     CA 1273741
                          Α1
                                19900904
                                            CA 1986-515739
                                                                    19860812
PRAI DE 1985-3529095
                          Α
                                19850814
     EP 1986-110675
                          Α
                                19860801
AB
     New, water-soluble copolymers based on acrylic acid derivs. are prepared and
     used in building materials, especially as plasticizers in self-leveling
     flooring compns. A copolymer was prepared having the composition Et acrylate
     15, vinyl acetate 7, a acrylamide 36, 1-vinyl-2-pyrrolidone 24, acrylic acid
     8, and 2-acrylamido-2-methylpropane Na sulfonate 10 mol%. Flooring compns.
     were prepared from portland cement PZ 35 175, fly ash 175, and sand with
     particle size 0-2 mm 725 g with addition of 0.1 SB 2030S defoaming agent and
     0.2 weight% of the copolymer. The water consumption was 129 mL, the amount of
     spreading was 250 initially and 265 mL after 1 h at which time the mix was
     easily made plastic by stirring and flowed to a smooth finish without
     sedimentation compared to 140 mL consumption, 165 and 165 mL spread, and
     leaving a nonflowing mix which gave an uneven surface and pronounced.
     depressions when a conventional melamine-HCHO condensate was used.
IC
     ICM C08F220-56
          C08F226-10; C08F220-06; C08F220-12; C08F226-06; C08F226-08;
          C04B024-24
CC
     58-4 (Cement, Concrete, and Related Building
     Section cross-reference(s): 37
TΤ
     Cement
        (flooring compns., self-leveling, containing acrylic copolymer plasticizers
        for smoothness)
TT
     107807-73-8 107807-74-9 107807-75-0
     107807-76-1 107807-77-2 107807-78-3
     107807-79-4
                   107826-38-0
                                107853-79-2 107853-80-5
     108090-90-0
     RL: TEM (Technical or engineered material use); USES (Uses)
        (plasticizer, in self-leveling flooring compns. for smoothness)
     107807-73-8 107807-74-9 107807-75-0
TT
     107807-76-1 107807-77-2 107807-78-3
     107853-80-5 108090-90-0
     RL: TEM (Technical or engineered material use); USES (Uses)
        (plasticizer, in self-leveling flooring compns. for smoothness)
RN
     107807-73-8 HCAPLUS
CN
     2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone,
```

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

ethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic

acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

Na

CM 2

CRN 140-88-5 CMF C5 H8 O2

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 4

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 79-10-7 CMF C3 H4 O2

CRN 79-06-1 CMF C3 H5 N O

O ... H2N-C-CH-CH2

RN 107807-74-9 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, 2-hydroxypropyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

NH—C—CH—CH2
Me—C—CH2—SO3H

Na

CM 2

CRN 999-61-1 CMF C6 H10 O3

OH O II OH CH2-O-CH-CH2-CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 79-10-7 CMF C3 H4 O2

CM 6

CRN 79-06-1 CMF C3 H5 N O

RN 107807-75-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, ethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

Na

CRN 140-88-5 CMF. C5 H8 O2

о || Eto-С-СН-СН2

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 4

CRN 88-12-0 · CMF C6 H9 N O

CH=CH2

CM 5

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

CM 6

CRN 79-06-1 CMF C3 H5 N O

RN 107807-76-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, methyl 2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na.

Na

CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

CRN 96-33-3 CMF C4 H6 O2

0 || MeO_C_CH__CH2

CM 4

CRN 88-12-0 CMF C6 H9 N O

CRN 79-10-7. CMF C3 H4 O2

о но-с-сн<u>с</u>сн₂

CM 6

CRN 79-06-1 CMF C3 H5 N O

O H₂N_C_CH__CH₂

RN 107807-77-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

NH-C- CH-CH2
Me-C-CH2-SO3H

Na

CM 2

CRN 868-77-9 CMF C6 H10 O3

$$\begin{array}{c|c} {\tt H2C} & {\tt O} \\ {\tt II} & {\tt II} \\ {\tt Me-C-C-O-CH_2-CH_2-OH} \end{array}$$

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 4

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 79-10-7 CMF C3 H4 O2

CM 6

CRN 79-06-1 CMF C3 H5 N O

RN 107807-78-3 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, 2-hydroxyethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-

propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

Na

CM 2

CRN 818-61-1 CMF C5 H8 O3

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 4

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 79-10-7 CMF C3 H4 O2

о || но<u>-</u> С— Сн <u>——</u> Сн₂

CM 6

CRN 79-06-1 CMF C3 H5 N O

O H₂N_C_CH_CH₂

RN 107853-80-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenyl acetate, N-ethenyl-N-methyl-2-propenamide, ethyl 2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 44642-58-2 CMF C6 H9 N O

Me O | || | H2C == CH = N = C = CH == CH2

CM 2

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

NH_C_ CH__ CH2

Me_ C_ CH2_ SO3H

Me

Na

CM 3

CRN 140-88-5 CMF C5 H8 O2

O || |EtO_CH__CH2

CM 4

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 5

CRN 79-10-7 CMF C3 H4 O2

о || но_ С_ Сн <u>—</u> Сн₂

CM 6

CRN 79-06-1 CMF C3 H5 N O

0 H₂N_C-CH_CH₂

RN 108090-90-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9 CMF C7 H13 N O4 S . Na

Na

CM 2

CRN 923-26-2 CMF C7 H12 O3

CM 3

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

CM 4

CRN 88-12-0 CMF C6 H9 N O

CM 5

CRN 79-10-7 CMF C3 H4 O2

CRN 79-06-1 CMF C3 H5 N O

0 H₂N-C-CH=CH₂

```
L69 ANSWER 51 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
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AN 1987:120961 HCAPLUS Full-text

DN 106:120961

TI Freezeproof adhesive agent

IN Nowak, Dominik; Halaburdo, Norbert; Wojtal, Henryk; Pepera, Marian;
Wegrzyn, Krzysztof; Kosno, Czeslaw

PA Instytut Ciezkiej Syntezy Organicznej "Blachownia", Pol.

SO Pol., 3 pp. CODEN: POXXA7

DT Patent

LA Polish

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	PL 126283	В1	19830730	PL 1980-222958	19800322
PRAT	PI, 1980-222958		19800322		

AB A freeze-resistant adhesive for bonding poly(vinyl chloride) flooring to concrete and gypsum substrates consist of a 40-60% aqueous dispersion of vinyl-maleic-acrylic polymer [e.g., Osakryl KM (I)] 30-50, ground CaSO4 30-45, 37-80% aqueous methoxymethylurea (II) solution 7-15 or 55-60% aqueous II-urea solution [weight ratio 7:(5-7)] 10, maleic resin-di-Bu phthalate (III) melt (weight ratio 13:14) 10-13, and, optionally, fungicides and bactericides. Thus, an adhesive consisting of a 60% dispersion of I 30, 80% aqueous II solution 12, ground CaSO4 45, and resin 13 (prepared by melting Polomal MA-56 (maleic resin) 6.26 and III 6.75 kg at 130°). The adhesive was stable and resistant to frost above -20°.

IC C09J003-14

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 42, 58

ST gypsum adhesive bonding PVC; adhesive polyvinyl chloride flooring; freeze resistance adhesive bonding concrete PVC

IT Floors

(PVC, freeze-resistant adhesives for bonding of, to concrete and gypsum)

IT Concrete

(adhesion of, to PVC floors, freezeproof compns. for)

IT Adhesives

 $(\hbox{freeze-resistant, vinyl-maleic-acrylic polymer-calcium sulfate composition,}\\$

for bonding PVC floors to concrete and gypsum)

IT Freezing

(resistance to, of adhesives for bonding PVC floors to concrete and gypsum).

IT Cold-resistant materials

(adhesives, vinyl-maleic-acrylic polymer compns. containing calcium sulfate, for PVC floors on concrete)

IT 57-13-6, Urea, uses and miscellaneous 13824-21-0, Methoxymethyl urea RL: USES (Uses)

(adhesives containing, freezeproof, for bonding PVC floors to concrete)

IT 84-74-2, Dibutyl phthalate 97622-45-2, Polomal MA-56

RL: USES (Uses)

(adhesives containing, freezeproof, for bonding PVC to concrete)

IT 107397-56-8

RL: TEM (Technical or engineered material use); USES (Uses)

(adhesives, containing calcium sulfate, freezeproof, for bonding PVC floors to concrete)

IT 9002-86-2, PVC

RL: USES (Uses)

(floors, bonding of, to concrete, freezeproof adhesives for)

IT 7778-18-9

RL: USES (Uses)

(maleic-acrylic-vinyl copolymer adhesives containing, freezeproof, for bonding PVC floors to concrete)

IT 107397-56-8

RL: TEM (Technical or engineered material use); USES (Uses)

(adhesives, containing calcium sulfate, freezeproof, for bonding PVC floors to concrete)

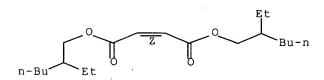
RN 107397-56-8 HCAPLUS

CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with dibutyl (2Z)-2-butenedioate, ethenyl acetate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 142-16-5 CMF C20 H36 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

CRN 105-76-0 CMF C12 H20 O4 Double bond geometry as shown.

CM 4

CRN 79-10-7 CMF C3 H4 O2

L69 ANSWER 52 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:428891 HCAPLUS Full-text

DN 105:28891

TI Waterproofing material

PA Vyzkumny Ustav pre Petrochemiu, Czech.

SO · Austrian, 6 pp.

CODEN: AUXXAK

DT Patent

LA German

FAN. CNT 1

AB

PA	ATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI AT	380228	В	19860425	AT 1984-1501	19840507		
ΑT	8401501	A	19850915				
PRAI AT	1984-1501		19840507				

The solid components of waterproofing materials consist of cement and/or gypsum 30-60, a filler, e.g., quartz sand, basalt fibers, microasbestos, broken andesite, limestone or dolomite 35-65, and modifiers consisting of a cellulose derivative and/or acid casein 2-4, highly dispersed silicic acid and/or Ca stearate 0.5-3, and, optionally, hexamethylenetetramine and/or urea 0.1-3.5 and organosulfur compds. 0.01-2 weight parts; for each 100 weight parts solids, the material contains 10-60 weight parts of a liquid waterproofing component consisting of an aqueous emulsion or dispersion of ≥ 1 copolymer formed by copolymn. of ≥2 monomers selected from vinyl chloride, vinyl acetate, C1-8 alkyl acrylate, acrylic acid, C1-8 alkyl methacrylate, methacrylic acid, acrylamide, styrene, 1,3-butadiene, maleic acid, and C1-12 alkyl maleates, with dry substance content 3-52 weight%, preferably an emulsion and/or dispersion of vinyl chloride, vinyl acetate, ternary copolymer with maleic acid, maleic acid derivative, and/or acrylic acid derivative Thus, a waterproofing material was prepared by mixing white portland cement 51, 0.02-0.1 mm ground quartz sand 40, fine ground limestone 4, Ca stearate 0.5, and casein 2.5, Na lignosulfonate 0.1, hexamethylenetetramine 0.4, and microasbestos 1.5 weight parts, and to 100 weight parts, 20 weight parts water and 8 weight parts of an aqueous dispersion of butadiene-n-Bu acrylate-styrene copolymer (solids content 51 weight%) was added with intense stirring; the pasty material was applied as a 0.65-0.75 mm layer on a nonimpregnated concrete base to give water absorption 0 weight% after 24 h and wet abrasion of 73 min by Czechoslovakian standard test.

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ICM C04B028-02
     ICS C04B028-14; C04B041-61
CC
     58-4 (Cement, Concrete, and Related Building
     Materials)
     Section cross-reference(s): 38
IT
    Cement
     Andesite
     Limestone, uses and miscellaneous
     RL: USES (Uses)
        (in waterproofing composition solid component, with aqueous polymer
dispersion)
                 25086-98-0 25767-47-9
     9005-09-8
                                           25838-20-4
                                                        26590-01-2
                                                                     29695-42-9
     30938-41-1 30940-81-9
                             33750-59-3 41934-30-9
     52469-24-6
                77829-80-2
     RL: TEM (Technical or engineered material use); USES (Uses)
        (dispersion, in waterproofing composition)
ΙT
     30938-41-1 30940-81-9 41934-30-9
     RL: TEM (Technical or engineered material use); USES (Uses)
        (dispersion, in waterproofing composition)
     30938-41-1 HCAPLUS
RN .
     2-Propenoic acid, polymer with butyl 2-propenoate, chloroethene and
     ethenyl acetate (9CI) (CA INDEX NAME)
     CM
     CRN 141-32-2
     CMF C7 H12 O2.
 n-BuO_C_CH__CH2
     CM
          2
     CRN 108-05-4
     CMF C4 H6 O2
 A c O - C H - C H 2
     CM
          3
     CRN 79-10-7
     CMF C3 H4 O2
```

-CH == CH2

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

RN 30940-81-9 HCAPLUS

CN 2-Propenoic acid, polymer with chloroethene, ethenyl acetate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

Eto-C-CH-CH2

CM 2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

CM 3

CRN 79-10-7 CMF C3 H4 O2

HO_C_CH__CH2

CM 4

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

RN 41934-30-9 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monobutyl ester, polymer with chloroethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 925-21-3 CMF C8 H12 O4

Double bond geometry as shown.

CM 2

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

L69 ANSWER 53 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:94262 HCAPLUS Full-text

DN 104:94262

TI Waterproofing material or compositions

PA Vyzkumny Ustav pre Petrochemiu, Czech.

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3418000	A1	19851121	DE 1984-3418000	19840515
	HU 40390	A2	19861228	HU 1984-2243	19840611
	FR 2566419	A3	19851227	FR 1984-9854	19840622
	FR 2566419	В3	19860606		
	DD 255849	A3	19880420	DD 1984-269495	19841114

PRAI DE 1984-3418000

19840515

10/551268

In a waterproofing material based on a hydraulic binder, fillers, modifying agents, liquid waterproofing additives based on synthetic and/or natural macromol. materials and water, the solid part of the binder consists of cement and/or gypsum 30-60 weight parts, and the filler consists of quartz sand, basalt fibers, microasbestos, crushed andesite, limestone, or dolomite 35-65 weight parts and modifiers of cellulose derivs. and/or acid casein 2-4, siloxide and/or Ca stearate 0.5-3.0, and optionally hexamethylenetriamine and/or urea 0.1-3.5 and S organic compds. 0.01-2 weight parts; the liquid waterproofing component content is 10-60 weight parts/100 weight parts, all as The waterproofing component is an aqueous emulsion or dispersion of ≥1 copolymer of ≥2 monomers selected from vinyl chloride, vinyl acetate, C1-8 alkyl acrylate, acrylic acid, C1-8 alkyl methacrylate, methacrylic acid, acrylamide, styrene, 1,3-butadiene, maleic acid, and C1-12 alkyl maleate, with 3-52 weight% dry substance content, preferably a ternary copolymer of vinyl chloride, vinyl acetate, and maleic acid and/or a maleic acid derivative and/or an acrylic acid derivative Thus, the solid, homogenized component of a waterproofing material consists of white cement PC400 51, 0.02-0.1 mm ground quartz sand 40 and finely ground limestone 4, Ca stearate 0.5, acid casein 2.5, Na lignosulfonate 0.1, hexamethylenetetraamine 0.4, and microasbestos 1.5 weight parts; water 24 and a concentrated dispersion of butadiene-Bu acrylatestyrene copolymer with dry substance content 51 weight 8 weight parts was added with stirring to 100 weight parts of the solid component and the pastry material was applied to a non-impregnated concrete sublayer in 3 layers to a thickness of 0.65-0.75 mm. After 24 h, the concrete had water uptake 0 based on the Czechoslavokian standard method and wet abrasion 73 min.

IC ICM C04B028-04

> ICS C04B028-14; C04B014-06; C04B014-38; C04B014-40; C04B014-46; C04B014-28; C04B014-14; C04B018-18; C04B024-14; C04B024-16; C04B024-08

CC 58-4 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ΙT Concrete

> (waterproofing materials for, from copolymer dispersions and fillers and hydraulic binders)

ΙT Cement

(waterproofing materials from copolymer dispersions and fillers and) 75-01-4D, polymers 79-06-1D, polymers 79-10-7D, C1-8 alkyl esters, 79-10-7D, polymers 79-41-4D, and C1-8 alkyl esters, polymers 100-42-5D, polymers 108-05-4D, polymers 106-99-0D, polymers 110-16-7D, and C1-12 alkyl esters, polymers 9005-09-8 29695-42-9 **30938-41-1** 25767-47-9 25838-20-4 30940-81-9 33750-59-3 **41934-30-9** 52469-24-6 77829-80-2

RL: TEM (Technical or engineered material use); USES (Uses) (waterproofing materials from fillers and hydraulic binders and dispersions of)

ΙT 30938-41-1 30940-81-9 41934-30-9

> RL: TEM (Technical or engineered material use); USES (Uses) (waterproofing materials from fillers and hydraulic binders and dispersions of)

30938-41-1 HCAPLUS RN

CN 2-Propenoic acid, polymer with butyl 2-propenoate, chloroethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 C7 H12 O2 CMF

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 3

CRN 79-10-7 CMF C3 H4 O2

о || но_ С_ СН <u>—</u> СН2

CM 4

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

RN 30940-81-9 HCAPLUS

CN 2-Propenoic acid, polymer with chloroethene, ethenyl acetate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

O || |EtO_C_CH__CH2

CM 2

9/18/07

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH_2$

CM 3

CRN 79-10-7 CMF C3 H4 O2

0 HO_C_CH__CH2

CM 4

CRN 75-01-4 CMF C2 H3 C1

 $H_2C == CH - C1$

RN 41934-30-9 HCAPLUS

CN 2-Butenedioic acid (2Z)-, monobutyl ester, polymer with chloroethene and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 925-21-3 CMF C8 H12 O4

Double bond geometry as shown.

CM 2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

10/551268

```
CM
      3
```

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

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L69 ANSWER 54 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1982:511382 HCAPLUS Full-text
     97:111382
TI
     Release coating materials for frames for concrete
PΑ
     Daicel Chemical Industries, Ltd., Japan; Sofuku Trading Co., Ltd.
     Jpn. Tokkyo Koho, 3 pp.
SO
     CODEN: JAXXAD
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
PΙ
     JP 57014285
                                19820324 ·
                          В
                                            JP 1974-121616
PRAI JP 1974-121616
                                19741022
     Copolymers of Me methacrylate, Et acrylate, Bu acrylate, vinyl acetate, and/or
     styrene with acrylic acid, methacrylic acid, or crotonic acid are dissolved or
     dispersed in H2O to give release coating materials for concrete frames. Thus,
     a plywood frame was coated with a 27% solid solution of 3:97 crotonic acid-
     vinyl acetate copolymer ammonium salt [31942-64-0] to 90-100 g/m2 and dried to
     form a water-resistant coating. When concrete was cast in the frame and set 1
     .apprx. 4 wk, the frame was released easily and the concrete surface was
     compatible with water-thinned coating materials.
IC
     B28B007-38
ICA B28B021-76; C08F020-06
CC
     42-7 (Coatings, Inks, and Related Products)
     Section cross-reference(s): 58
ST
     release agent concrete frame; crotonic acid copolymer release
     agent; vinyl acetate copolymer release agent
IT
     Concrete
        (release coatings for frames for, water-thinned vinyl compound-unsatd.
        acid copolymers as)
IT
     Coating materials
        (release, vinyl copolymer with unsatd. acids, water-thinned, for
        concrete frames)
ΤТ
     25133-97-5 29796-14-3
                             31942-64-0
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, release, for concrete frames)
     29796-14-3
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, release, for concrete frames)
RN
     29796-14-3 HCAPLUS
CN
     2-Butenoic acid, polymer with butyl 2-propenoate and ethenyl acetate (CA
     INDEX NAME)
     CM
          1
```

3724-65-0 CMF C4 H6 O2

CRN

9/18/07

Me-CH-CO2H

CM 2

CRN 141-32-2 CMF C7 H12 O2

0 n-BuO_C_CH__CH2

CM 3

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

L69 ANSWER 55 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:624504 HCAPLUS Full-text

DN 95:224504

TI Cement composition with improved fluidity and setting retardation

PA Nippon Synthetic Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA . Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56092154	A	19810725	JP 1979-170980	19791226
	JP 62035986	В	19870805		•
PRAI	JP 1979-170980	A	19791226		
7 D	7	, ,	111 0 01 1		

AB Cement 100 parts is mixed with 0.01-1 part unsatd. dicarboxylic acid monoester-vinyl acetate copolymer (dicarboxylic acid monoester content 1-15 mol%). Thus, 100 parts portland cement were mixed with sand 300 and monomethyl maleate-vinyl acetate copolymer [25969-89-5] 0.5 part, mixed with water, molded, and hardened. Its initial and final setting times were 8 h 50 min and 11 h 15 min.

IC C04B013-24

CC 58-1 (Cement and Concrete Products)

IT 25969-89-5

RL: USES (Uses)

(in mortar, for setting time control)

IT 25969-89-5

RL: USES (Uses)

(in mortar, for setting time control)

RN 25969-89-5 HCAPLUS

CN 2-Butenedioic acid (2Z)-, 1-methyl ester, polymer with ethenyl acetate (CA INDEX NAME)

CM 1

CRN 3052-50-4 CMF C5 H6 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4 CMF C4 H6 O2

Ac0-CH-CH2

L69 ANSWER 56 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:32079 HCAPLUS Full-text

DN 94:32079

TI Water-absorbent vinal fibers

PA Nippon Synthetic Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 55132713	Α	19801015	JP 1979-38666	19790330
	JP 61042002	В	19860918	•	
PRAI	JP 1979-38666	Α.	19790330		

Blends of a saponified unsatd. dicarboxylic acid ester-vinyl ester copolymer and poly(vinyl alc.) (I) were cast and split to give flat fibers with high water absorption. These fibers were useful as sanitary absorbents and binders for cement. Thus, aqueous 20% of a blend of 50 parts 5:95 saponified monomethyl maleate-vinyl acetate copolymer and 50 parts I was cast, dried, drawn 450% at 140° in the machine direction, heat-treated 30 min at 140°, and split. The physiol. saline water absorption rate for the above fibers was high, whereas this rate was low for com. pulp absorbents.

IC D01F006-50; D01F006-52

CC 39-2 (Textiles)

Section cross-reference(s): 58

ST vinal fiber sanitary absorbent; water absorbent vinal fiber; binder cement vinal fiber

IT Cement

(binders for, water-absorbent vinal fibers as)

IT Binding materials

(for cement, water-absorbent vinal fibers for)

IT **25969-89-5D**, saponified

RL: USES (Uses)

(vinal flat fibers containing, manufacture of, for sanitary absorbents)

IT 25969-89-5D, saponified

RL: USES (Uses)

(vinal flat fibers containing, manufacture of, for sanitary absorbents)

RN 25969-89-5 HCAPLUS

CN 2-Butenedioic acid (2Z)-, 1-methyl ester, polymer with ethenyl acetate (CA INDEX NAME)

CM 1

CRN 3052-50-4 CMF C5 H6 O4

Double bond geometry as shown.

$$HO_2C$$

CM 2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

L69 ANSWER 57 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1980:605587 HCAPLUS Full-text

DN 93:205587

TI Adhesive for bonding poly(vinyl chloride) to concrete

IN Lukoyanova, A. F.; Figovskii, O. L.; Zokhin, G. I.; Storozhinskii, A. M.; Karlovskii, V. M.; Raigorodskii, V. I.; Kremnev, K. V.; Efimova, T. A.

PA "Stroiplastmass" Industrial-Enterprises of Synthetic Trimming and Insulation Building Materials, USSR

SO U.S.S.R.

From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1980, (17), 108. CODEN: URXXAF

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	SU 732348	A1	19800505	SU 1977-2491168	19770531
PRAI	SU 1977-2491168	A	19770531		

AB The adhesive strength and water resistance of an adhesive comprising Bu acrylate-Na methacrylate-vinyl acetate copolymer (I) [75454-37-4], rosin, thickener, filler, solvent, and water are increased and its drying time is reduced by adding a cyclohexanone oligomer (II) of mol. weight 280-400 to

```
provide a composition consisting of I 15-35, rosin 3.5-7.0, solvent 1.5-3.0,
     II 0.3-0.6, thickener 1-2, filler 20-36 weight%, and the balance water.
IÇ
CC
     36-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 58
ST
     PVC bonding concrete adhesive; acrylic copolymer adhesive PVC;
     cyclohexanone oligomer acrylic adhesive
IΤ
     Concrete
        (adhesives for bonding of, to PVC, acrylate copolymer compns. as)
IT
     Waterproof materials and Water-repellent materials
        (adhesives, acrylate copolymer compns., for bonding PVC to
        concrete)
ΙT
        (water-resistant, acrylate copolymer compns., for bonding PVC to
        concrete)
ΙT
     9002-86-2
     RL: USES (Uses)
        (adhesives for bonding of, to concrete, acrylate copolymer
ΙT
     75454-37-4
     RL: USES (Uses)
        (adhesives, for bonding of PVC to concrete)
ΙT
     108-94-1D, derivs., polymers
     RL: USES (Uses)
        (oligomeric, acrylate copolymer compns., water-resistant adhesives, for
        bonding PVC to concrete)
ΙT
     75454-37-4
     RL: USES (Uses)
        (adhesives, for bonding of PVC to concrete)
RN
     75454-37-4 HCAPLUS
CN
     2-Propenoic acid, 2-methyl-, sodium salt, polymer with butyl 2-propenoate
     and ethenyl acetate (9CI) (CA INDEX NAME)
     CM
          1
     CRN
         5536-61-8
     CMF C4 H6 O2 . Na
    CH2
 Me-C-CO2H
   Na
```

CRN 141-32-2 CMF C7 H12 O2

n-BuO-C-CH-CH2

CRN 108-05-4 CMF C4 H6 O2

AcO-CH-CH2

L69 ANSWER 58 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1973:505736 HCAPLUS Full-text

DN 79:105736

TI Acrylic copolymer dispersions

IN Naarmann, Herbert; Mueller, Gerhart

PA Badische Anilin- & Soda-Fabrik AG

SO Ger. Offen., 10 pp. CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	01.1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					
P	I DE 2163060	A1	19730620	DE 1971-2163060	19711218
	AU 7249948	A	19740613	AU 1972-49948	19721212
	CH 564570	A 5	19750731	CH 1972-18061	19721212
	NL 7217122	A	19730620	NL 1972-17122	19721215
	IT 974108	В	19740620	IT 1972-54759	19721215
	AT 323996	В	19750811	AT 1972-10740	19721215
	GB 1404989	A	19750903	GB 1972-57930	19721215
	ES 409726	A1	19751116	ES 1972-409726	19721216
	FR 2163769	A1	19730727	FR 1972-45122	19721218
	JP 48085678	A	19731113	JP 1972-126330	19721218
P	RAI DE 1971-2163060	А	19711218		

Dispersions containing 20-50.6% title polymers, e.g. acrylamide-acrylic acidethyl acrylate-potassium β -morpholinoethyl maleate-vinyl acetate copolymer (I) [41941-00-8], and useful as binders for fiber fleece or for coatings for paper, textiles, wood, and concrete, were prepared by aqueous emulsion polymerization. Thus, H2O 315, Na lauryl sulfate (II) 8.5, Na4P2O7 1.5, vinyl acetate 290, acrylic acid 8.0, acrylamide 2, K β -morpholinoethyl maleate 6, ethyl acrylate 195, and 25% K2S2O8 40 parts were added to H2O 100, II 1.2, and K2S2O8 2 parts within 4 hr at 100.deg.. Cooling and addition of 5.7 parts 25% NH4OH gave a 50.6% I dispersion, useful for coating of wood and concrete.

IC CO8F

CC 35-3 (Synthetic High Polymers)
 Section cross-reference(s): 43, 58

ST acrylic copolymer dispersion; maleate monoester acrylic copolymer; coating acrylic copolymer dispersion; binder acrylic copolymer dispersion; fumarate monoester acrylic copolymer; wood coating acrylic dispersion; morpholinoethyl maleate acrylic copolymer; concrete coating acrylic dispersion; pyrrolidonylethyl maleate acrylic copolymer; paper coating acrylic dispersion; textile finishing acrylic dispersion; fleece binder acrylic dispersion; polyethylene glycol maleate copolymer

IT Concrete

Paper

Textiles

(coatings on, acrylic copolymer dispersions as)

IT 39420-72-9P **41941-00-8P** 42476-13-1P 42476-14-2P

42476-15-3P 42476-16-4P 42503-49-1P

RL: PREP (Preparation)

(dispersions, manufacture of, for binders and coatings)

IT 41941-00-8P

RL: PREP (Preparation)

(dispersions, manufacture of, for binders and coatings)

RN 41941-00-8 HCAPLUS

CN 2-Butenedioic acid (2Z)-, mono[2-(4-morpholinyl)ethyl] ester, potassium salt, polymer with ethenyl acetate, ethyl 2-propenoate, 2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 48162-90-9 CMF C10 H15 N O5

Double bond geometry as shown.

CM 2

CRN 140-88-5 CMF C5 H8 O2

O EtO_C_CH__CH2.

CM 3

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH \longrightarrow CH2$

CM 4

CRN 79-10-7 CMF C3 H4 O2

```
но_ C_ CH __ CH2
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CRN 79-06-1 CMF C3 H5 N O

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L69 ANSWER 59 OF 59 HCAPLUS COPYRIGHT 2007 ACS on STN
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AN 1970:428476 HCAPLUS Full-text

DN 73:28476

TI Polymer-containing cement compositions

IN Kalandiak, Michael

PA Rohm and Haas Co.

SO S. African, 20 pp.

CODEN: SFXXAB

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡĪ	ZA 6805949		19691127	ZA	
	DE 1771962		1303112.	DE	
	FR 1602457			FR .	
	GB 1236263 US 3547853		19701215	GB US	19670920
PRAI			19670920		130.0320

Dry hydraulic cement mixts. with excellent storage stability and which may be hydrolyzed to yield floor coverings, plasters, grouts, and adhesives with excellent tensile, compressive, and flexural strength were prepared by blending portland cement with 3-20% metal salts of water dispersible polymers with glass transition temps. >30°, Na citrate setting retarder and sequestering agent for the metallic ions, 1-5% trimethylolethane or trimethylolpropane, 5-25% Na2CO3, and various defoaming agents, fillers aggregates, and pigments. Water-dispersible polymers used were the Ca salt of 46:49:5 (weight %) Et acrylate-Me methacrylate (I)-methacrylic acid (II) copolymer, the Al salt of 30:20:40:10 Bu acrylate-acrylonitrile-I-acrylic acid copolymer, or the Zn salt of a 25:55:12:8 2-ethylhexyl acrylate-styrene-vinyl acetate-II copolymer.

CC 58 (Cement and Concrete Products)

ST portland cement polymers; coating polymeric cements; grouts polymers; paint masonry polymers; methacrylate copolymer cements; acrylate copolymer cements

IT Cement

Mortar

(dry storable, containing acrylic polymers)

IT 25133-97-5, uses and miscellaneous 28206-15-7, uses and miscellaneous 28803-94-3, uses and miscellaneous

RL: USES (Uses)

(cement, dry storable)

IT 28803-94-3, uses and miscellaneous

RL: USES (Uses)

(cement, dry storable)

RN 28803-94-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenyl acetate, ethenylbenzene and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 108-05-4 CMF C4 H6 O2

AcO-CH \longrightarrow CH2

CM 2

CRN 103-11-7 CMF C11 H20 O2

CM 3

CRN 100-42-5 CMF C8 H8

 $H2C \longrightarrow CH - Ph$

CM 4

CRN 79-41-4 CMF C4 H6 O2

CH2 || Me-C-CO2H

=>